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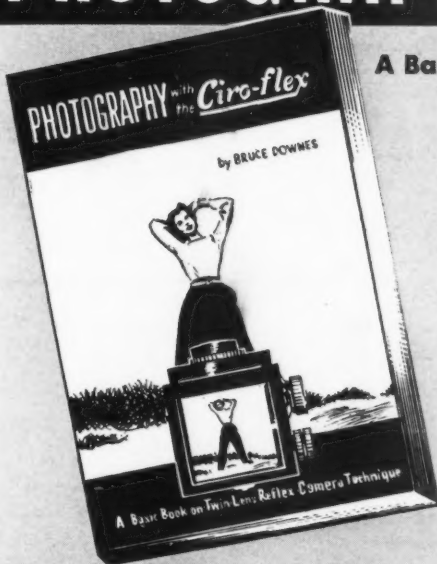
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MAY
1953

VOL. 47
NO. 5

COVER DESIGN BY HARLAN CRANDALL ASSOCIATES

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 AMERICAN PHOTOGRAPHIC PUBLISHING CO.

553 Avenue of the Americas, New York 11, N. Y.

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 SUBSCRIPTION rates: \$3.50 per year in the U.S. and its possessions, Mexico, South and Central America and Canada. \$4.50 per year elsewhere. Single copy: 35 cents.

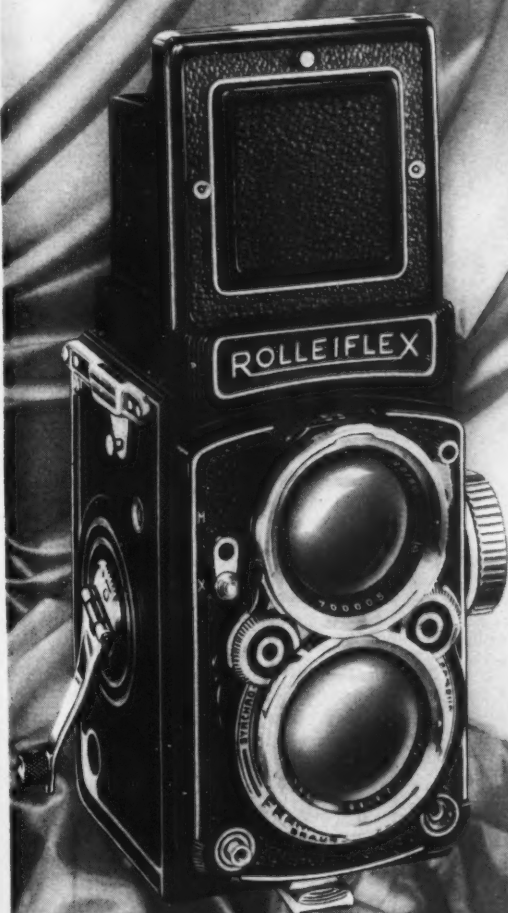
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comments on films

Moulin Rouge, the “story” of Henri de Toulouse-Lautrec, directed by John Huston, visually is one of the most exciting new films to be seen. Its script, editing and acting, however, are only run of the mill and are markedly inferior to the film's brilliant color technique.

Eliot Elisofon (*Life* photographer), who served with Huston as special color consultant, was responsible for the nuances of color that excite and often delight the eye. For *Moulin Rouge* is not photographed in the usual clanging Hollywood color, but is “painted” in a variety of tones and textures. Elisofon did not try to duplicate Lautrec's own colors: “What is food for an easel painting or a poster is often not right for film making,” he explained. “My first experiment was to use blue filters of various densities over the camera lens to produce, among other things, a slight bluish cast reminiscent of Lautrec's paintings to create mood . . . we wanted to be able to paint with colored light.”

The greenish cast of the bridge scene (shot through a yellow filter) suggests a haze of melancholy, a mood in direct contrast with that created by the garish reds of the razzle dazzle dance hall episodes, the heat and violence of debauchery.

Some scenes are replicas of Lautrec's originals. One masterful instance was the bordello scene. First we see Lautrec's painting of this, then watch it dissolve into a realistic setting, with players posed as in the painting.

The film showed, too, that much of what we see is taken for granted, and that good shots easily can be overlooked. The often non-descript Paris backstreets provided effective material for unusual photography.

Although Ossie Morris handled his cameras ably considering Huston's questionable direction, editor Ralph Kemplin certainly should have used his shears more, and with better judgment, to enhance both photography and continuity. For example, the bar scene, with Lautrec and his contemporary painters had no function at all and should have been cut. The biggest blunder was to permit Jane Avril's line (“Toulouse, why aren't you tall and handsome?”) which gives away his infirmity before we see him stand up. Had this information been entrusted solely to the camera, to be revealed without dialogue, the impact of Lautrec's dwarfed stature—which was the crux of the story—would have been profound.

• Titled *Triorama*, four 16mm color stereo films are being shown in New York: *Sunday In Stereo*, filmed by David Mage and

(Continued on page 8)



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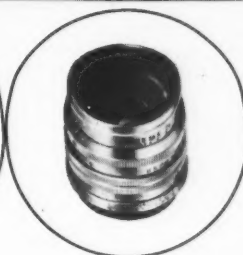
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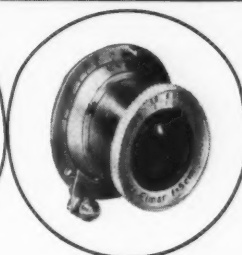
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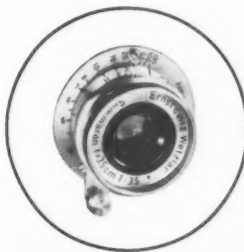
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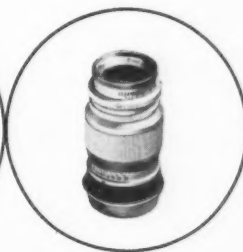
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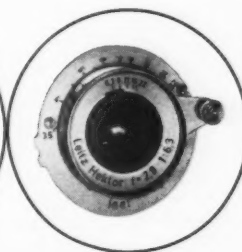
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Notes From A Laboratory

By Herbert C. McKay

THE STEREO PICTURE

There was a time when the amateur photographer was perforce expert in the scientific aspects of his hobby. Good results could not otherwise be obtained. However, that time is past today, although there are many experimenters who are primarily interested in the technical aspects of photography, the great bulk of our amateurs are primarily interested in making good pictures.

Because of this, and because disinterested newcomers to photography find the stereo picture infinitely more attractive than the planar, stereo is rising in popularity at rocket speed. Naturally this brings up the old, old argument about the place of photography in art. Is photography an art? The logical answer is that photography is a medium which may eventually be used for purposes which parallel those of fine art, but up to the present time no immortal photograph has been made!

If, on the contrary, we use the word "art" to designate collectively those activities which give an outlet to the universal urge toward creative work, then photography is undoubtedly an art. But in the latter instance we are at once confronted with the fact that this art is commonplace. It is the possession of John and Jane Doe and as such it undoubtedly serves in a way just as important to human advancement as that art which is restricted to the rare genius.

In this area of the average man and woman, stereo holds a high place indeed. It gives to those who lack formal art training and formal art appreciation the ability to make and to enjoy the reproduction of objects and scenes which to them appear beautiful.

It might be said that this applies as well to all photography but it does not. The planar photograph has but two dimensions, the stereogram and nature alike possess three dimensions. The production of the planar photograph demands a sufficient amount of skill and experience to make possible the translation of a three-dimensional aspect into two-dimensional limits.

This is not at all a theoretical obstacle. You have often heard expressions like these: "Why, that doesn't look at all like me!" or "Well, here is a picture of the place but it doesn't do it justice." or "Of course I've

seen your picture, but I would never have recognized you." In fact such remarks are the very label of ordinary photography. Why? Because the translation from three to two dimensions has not been done with sufficient skill.

You will find many lengthy discussions about basic pictorial composition in photography, discussions which go deeply into a maze of unfamiliar words and expressions yet, apparently unknown to the speakers and writers themselves, the core of the problem is nothing more than the manner in which one dimension may be eliminated without too gravely altering the actual appearance of the original.

Although we speak of "photographic accuracy," the planar photograph is actually little more "accurate" than a good wash drawing. Certainly it is infinitely removed from "faithful reproduction."

Newcomers to stereo are impressed with the realism of the picture and attribute it to the fact that actual three-dimensional space is reproduced. However, while this is important, the basic realism comes from the fact that an object reproduced without loss of one dimension presents to the eye the identical appearance of the original. This is the cause of the fantastic realism.

This same reproduction of normal space is the reason beginners can make excellent pictures. One need know nothing at all about dimensional translation—or pictorial composition—or photographic arrangement. A beautiful scene presents itself to the eye—snap—it is faithfully recorded exactly as it lay before the lens. You never hear expressions about strangeness of appearance when stereograms are the subject of discussion. Instead you hear, "You can almost see him breathe." "Isn't that perfect? You might be talking to her." "There is the camp just exactly as it looked. It couldn't be more natural."

In spite of all this, you often hear stereo maligned as "pictorially impossible." Nonsense! Stereo has already produced pictures of more genuine artistic value than has ever appeared from the planar camera! Then why the antagonism?

Would you pick a horse breeder to act as a judge at a furniture exhibit, simply because he is "an experienced judge?" Would you select an African king to act as a judge at one of our beauty contests, even though he is an expert in judging feminine attractiveness? In short, would you select

any judge for a contest in which the accepted standards are basically opposed to his own?

Stereo and planar are basically different. Standards are often diametrically opposed. Then why should a planar judge or even a planar pictorialist be chosen to judge stereo shows? It is as wrong as it could be.

I have been a member of planar juries; I have worked closely in the planar field for more than a quarter century. During all of that time I have also worked in stereo, yet I would not accept a place upon a stereo jury. I knew that despite my favorable regard for stereo, that this long association with planar would subconsciously influence me toward the application of planar standards—to the detriment of my stereo judgment.

Judges of stereo pictures should be those who have never made a serious photograph in their lives other than in stereo! Right now there are plenty of these stereographers so that any group or club can nominate such a jury. If this cannot be done, the next best thing is to make up a jury of those who know nothing at all about either planar or stereo pictorialism. If your desire is to select those pictures which are actually the most appealing, the lay jury is the only fully disinterested jury you can find.

This is not pure theory at all. A recent Stereo Guild International Salon was submitted to several juries. One included three competent planar pictorialists. Another was made up of eight highly competent stereographers who work in localities from Boston to San Francisco, from Michigan to Texas. There were two lay juries as well, one in the Middle West, one in the Southeast.

Naturally there were differences among the opinions of individuals, yet there were three distinct patterns apparent. The two lay juries, so far apart geographically, were in close accord. The stereo jury was not too far removed from them. The pictorial jury had practically nothing in common with the other three. Their judgment was obviously made upon the basis of the planar composition of a single picture. The result was, that while all juries selected the ten best slides from less than 100, the three remaining juries did not include any of the ten pictures selected by the planar pictorial jury!

In this same connection, the current practice of camera clubs forming "stereo groups" is a mistake! What do you think would be the status of modern art today if it had been forced to exist only as a subordinate group in the world of academic art? The very philosophy, the techniques, the habit of thought which has brought it to its present level, would never have existed. Stereo should have its own clubs, its own societies, its own leaders, its own shows and juries, all of them totally independent of any planar influence. For stereo is *not* a subdivision of planar photography. It is a

(Continued on page 17)

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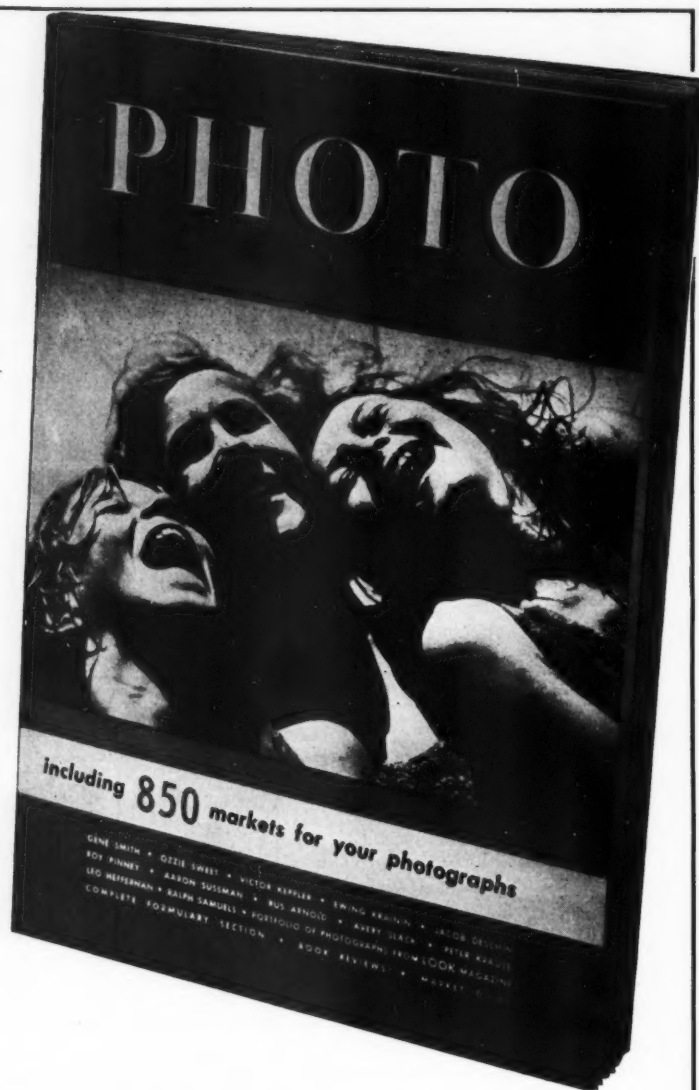
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comments on films

(Continued from page 4)

Milton Fruchtman; *Indian Summer* and *American Life*, filmed by Ernest Wildi; and *This is Bolex Stereo* (screenings at the recent National Photographic Show), filmed by Larry Croylus, Hal Reiff, Ewing Krainig and John Storr.

In these films the method was used of recording two images, each one on either side of a single, divided frame. The films are viewed with polaroid glasses on a small vertical, rather than standard horizontal screen.

Although the films are usually sharp (any fuzziness seemed to be due to projection difficulties), their content, except for Professor Storr's subtle underwater shots, leaves something to be desired.

The effect of water, arrows, and other objects that come flying head-on, has little meaning out of context and soon palls.

Stereo filmers must become more articulate—and I believe they will—within this new medium in order to achieve maximum success.

-D.

• *The 5000 Fingers of Dr. T.*, Frank Planer, ASC, Director of Photography; *Roy Rowland*, Director; *Al Clark*, ACE, Film Editor.

Those who remember fondly the drawings of fantastic insects accompanying the slogan, "Quick, Henry, the Flit!", will be happy to learn that the same off-beat talent of "Dr. Seuss" has been turned to a movie story. As would be expected, the result is completely delightful.

The story theme is the dream-fantasy of a small boy forced to what seems to him everlasting piano practice. Filmed in Technicolor, the boy wanders through a fantasy castle dominated by Dr. Terwilliger, the music teacher, determined to realize his dream of 500 boys all seated at one yard-long keyboard and all playing under his wicked baton "forever."

There are touches of magnificent near-slapstick, some musical numbers which nearly approach the wit of Gilbert and Sullivan and a warm little thread of real-life winding through it.

The color is excellent and the lighting good, but without any real innovations—some scenes could perhaps have been improved by more experimental lighting. Several scenes were exceptionally well cross-cut by the film editor.

Movies (plural) may or may not be better than ever. This is 88 minutes of proof that they certainly can be better if the formulas are forgotten.—G.W.

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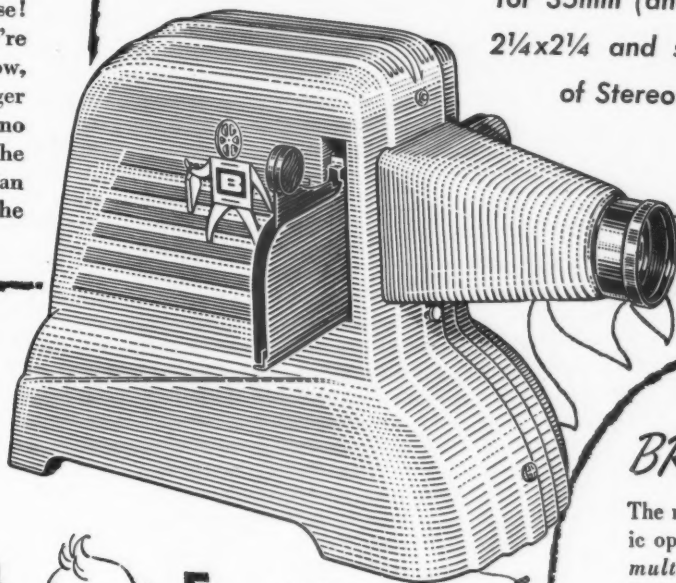
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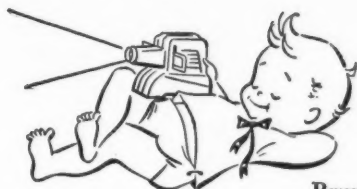
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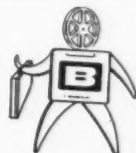
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POSITIVE

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From Jinx

Dear Sir:

Thanks so much for the copies of AMERICAN PHOTOGRAPHY—I loved seeing Bob Jennings' article and pictures.

Jinx McCrary
Manhasset, L.I., N.Y.

Errata

Dear Sir:

Our client has called attention to the fact that a certain company has been advised as "The only 8mm movie camera with automatic built-in exposure regulator." Please be advised that Ercona Camera

Corp. distributes in this country a movie camera known as the *Nizo Helimatic*, which also features an automatic built-in exposure regulator. The claim to exclusiveness in this particular feature is therefore not warranted.

Edward Mandell
The Zlowe Co.
New York, N.Y.

Re "Idea for Moderns"

Dear Sir:

I would be only too glad to cooperate in your plan to have portfolios for "Young Turks."

Dr. E. J. Gording
Windber, Penn.

Dear Sir:

In reply to your article in the February issue of AMERICAN PHOTOGRAPHY magazine, I would like to add my name to the list of those interested in your plan on the exchange of prints.

Chris A. Lohr
Pittsburgh, Penn.

Dear Sir:

Your idea for "Moderns" is the best editorial I have read on the subject. It would be difficult to express it better.

Some months ago I was elected president of the Chattanooga Chapter of the PSA but after "struggling" with the old guard, I resigned. I retained my membership in this and another camera club but a number of us are forming a new club with the idea of making pictures. . . .

We believe there is a time and a place for everything—but about 50 of us want to do something besides pictorials—something modern—with some life. We hope to complete our organization around March 1 and we would certainly like to cooperate in seeing and adding to small groups of pictures, including color slides, something that is growing here by "leaps and bounds."

Louis R. Stein, Jr.
Chattanooga, Tenn.

Dear Sir:

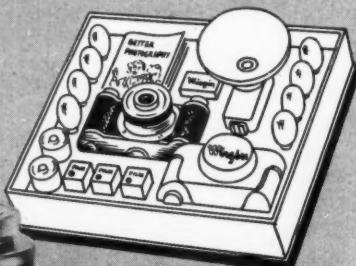
I have always been under the impression that Editors knew something of the subject they wrote about. . . . This does not seem to be true in your case where you wrote in your editorial [February, 1953] "The portfolio activity of the PSA is a very commendable activity as it is now organized, but useful solely for those who wish to continue in an old established tradition."

By simply reading the *PSA Journal* you
(Continued on page 12)

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POSITIVE

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(Continued from page 10)

would have seen that this statement was not true, as there is a portfolio for all branches of photography . . . Pictorial, Portrait, Nature, Miniature, Control Process, Photo-Journalism, Star Exhibitor, Technical, International, Color slide circuits, Stereo circuits and even movie.

It is also up to the member to decide which portfolio he wants to participate in, and also up to them to state what their aims are, their work will be evaluated accordingly. There is a place in PSA for all branches of photography, the "Old Guards and Young Turks."

All of the above portfolios are for the individual member, for the clubs there are instruction sets in both black and white and color, and many print sets and color slide sets from clubs all over the world. There is also the "PSA Camera Club Print Cir-

cuits" of which I have the honor of being the Director. Camera clubs from all over the United States are now participating in this activity, and they may send in any type of print they want to. True these prints are first commented on by a prominent "Pictorialist," but, strange as it may sound to you, they have never condemned a print because it was not "Pictorial," but have commented on the merits of the picture itself, and on what the individual said were his aims, the set of prints are then sent to each of the clubs that make up the circuit for their comments.

In view of the above I feel that you should correct your "Editorial" and inform your readers that what you offer is not new.

George J. Munz
Bergenfield, N. J.

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SPEEDLIGHT

ANDREW F. HENNINGER

I have a speedlight which I synchronize through a flashgun to my solenoid equipped shutter. It has operated satisfactorily until recently, when it has become inconsistent, never seeming to be in perfect sync. for even two consecutive shots at the same time delay setting on the speedlight. What could be causing the trouble?

—M. J., Little Rock, Ark.

The erratic synchronization could be caused by poor electrical contacts somewhere in the circuit from flashgun to solenoid or from flashgun to the speedlight time delay circuit. It would be well to make sure all connectors and sockets fit properly, and to clean them of corrosion.

Sometimes wires in connecting cords break inside the insulation causing intermittent or variable resistance contact. This usually occurs near a plug, where the cord receives the most flexing. The point of trouble may be located by directing the light toward a wall, while flashing the unit; viewing the lighted area through the lens, while bending the cords to a different position before each flash to determine if synchronization changes.

Less likely causes of the trouble are variations in the closing time of the shutter solenoid or speedlight time delay mechanism. Check the latter, if a relay is used, for wires pressing against the armature or some condition in its adjustment that would cause variations in closure time. Check the shutter solenoid for alignment, making sure the pull on the shutter release lever is direct; not at an angle, and that the solenoid core returns to exactly the same position each time the shutter is tripped.

I use speedlight with my Leica Camera. The lamp is mounted to an "L" bracket which is attached to the tripod socket at one end of the camera. With the screw at maximum tightness, the camera will still swing on the

bracket. What can be done to correct this condition?

—G. L., Detroit, Mich.

Most standard camera brackets have three holes along the side that mounts to the camera. The one furthest from the one used to attach the camera may be employed to mount a U-shaped fitting. It may be made of 3/8-inch wide aluminum, bent so that the inside of the U will fit over the bracket and camera and with the ends extending about 1/8 inch above the bracket to approximately the height of the chromed portion of the camera plate. The fitting is drilled in the center and tapped for the 8/32 screw which is used to hold it in position.

I have a Rollei and a low powered speedlight. Would it be possible to use a midget flashgun in conjunction with the speedlight? How could this be done and would it be advantageous or would it produce a double image? What about color shots? What would be a theoretical guide number?

—R. J., Andover, Mass.

It is possible to use flashbulbs in conjunction with most speedlights. Some makes have provisions for this feature without adding auxiliary equipment. I'm not sufficiently familiar with the particular speedlight you are using to give you the exact details, and would suggest writing to the manufacturers. They probably have experimented in order to work out the best method for their particular unit.

In general, it is necessary to splice parallel connections from your present shutter cord so that, in effect, you would have two cords connecting from the shutter to speedlight and flashgun. The shutter contacts would then close the flashing circuits of both speedlight and flashbulb simultaneously.

If you use the "X" setting of the camera contacts, follow factory recommendations in working at the lower shutter speeds with the flashbulb in order to obtain maximum benefit from both light sources.

For average, slow-moving subjects there would be little likelihood of obtaining double images. Limit subject material to that capable of being photographed without blur, by a flashbulb at the shutter speed in use.

Many professionals use a speedlight-flashbulb combination for occasional pictures when extra powerful illumination is required. Examples would be a large banquet hall with poor reflective qualities and subjects at various distances from the camera, requiring a small diaphragm setting in order to obtain maximum depth of field. Certain color shots requiring a small diaphragm setting would also need the added boost in light provided by a flashbulb.

For color work it is best to use blue flashbulbs and daylight-type color film in order to match the speedlight color temperature without employing corrective filters.

If all lights are positioned on the camera side of subject, the effective guide number would be the sum of the speedlight and flashbulb guide numbers, modified in

accordance with contemplated development time.

I've wasted many hours trying to match our requirements with a definite speedlight unit in the local photo supply stores. The salesmen seem sure only that the unit they are selling is a very good one, but are unable to provide specific information.

—R. H., New York, N. Y.

Many photo supply stores have very competent speedlight salesmen and your calls at some of the others have probably been helpful to the salesmen by indicating the type information prospective customers frequently require.

The same salesmen probably possess an amazing amount of detailed information on cameras and accessories and will soon have added to it the necessary electronic information concerning watt-second ratings, flash duration, oil filled or electrolytic capacitors, self ionizing or trigger type flashtubes, etc.

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GENERAL ELECTRIC

BOOKS IN REVIEW

SMITH, VICTOR C., *Photography Workbook*, J. B. Lippincott Co., New York, 1953.

For the teen-age beginner or other groups which require a simple approach to photography, the author has prepared a series of 38 basic lesson sheets, plus review quizzes and bibliography. This outline can be used by a teacher in junior or senior high or by any adult supervising a younger group.

Inevitably, this outline is confined to very basic procedures and its successful use will depend on the viewpoint and abilities of the teacher using it.

ALLISON, K. L., ARPS, *35mm Photography with an Exakta*, The Fountain Press, London, 1952, \$3.

Of the making of books about cameras there is no end. In this case, the presentation is very well handled and a great deal of genuinely helpful material on using the 35mm camera in many different situations

is clearly presented. In addition, three other experts have contributed sections on using the Exakta in "Theater, Ballet and Action," "Surgical Photography" and "Scientific Photography," respectively.

There is the usual tendency in such books to imply that the one camera will do every possible job perfectly. However, there are excellent pictures sprinkled through the book which do prove that the Exakta is a wonderfully versatile instrument.

This will be helpful to any non-expert Exakta user and, to a slightly lesser degree, to many other users of 35mm equipment.

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field, based upon photography, but as radically different from photography as are photo-engraving and blue-printing! And if there is a planar photographer who objects that these two are only photography, let him go to an offset plant and, unaided, turn out a good piece of photolithography!

Why all of this? Simply because you as a stereographer will be beset by criticism based upon planar standards. Attempts will be made to discourage you because your novel work does not conform to classic standards. Do not let such criticism affect you, but remember that in actual fact stereographers with less than six months experience have made pictures of greater universal appeal than were ever photographed upon a flat surface! In whose judgment? That of those who have no prejudice, laymen!

Then, to those of you who have struggled months or years trying to produce a planar print which should deserve the citation, "A Good Picture," and who have failed, let me say this: Your failure does not necessarily indicate an absence of critical appreciation. On the contrary it reflects, more probably, your inability to acquire the trick of transposing dimensions. You think because the original is beautiful, the picture should be. All experienced pictorialists know there is no necessary relation.

Many excellent pictures have been made of subjects which lacked even the rudiments of beauty. On the contrary, many extremely beautiful originals defy pictorial reproduction in the plane. Take hope! In stereo, a beautiful original will result in a beautiful picture, and when you add a certain degree of skill, it will result in a very beautiful picture. On the contrary, an ugly

original will produce the same kind of picture. There is no trickery involved, only straight-forward reproduction.

It has been argued that this automatic realism removes stereo from the field of art. Does it? What makes an artist? Is it his ability to draw and paint, a skill which anyone can master to some degree by long and arduous practice, or is it his ability to see and respond to the beauty of existing things? I think it is the latter. Artistry is a matter of the soul, of emotion, rather than of manual dexterity.

If you have an appreciation of beauty, stereo enables you to make faithful records of the beauty you perceive and your response to this beauty need not be tempered by the necessity for remembering technical problems and their solutions. Stereo is indeed a medium for the true artist and for the lover of beauty.

Of course planar pictorialism has its place, so does every other medium of artistic expression. The point I am trying to make is that this applies to stereo as well. The position of stereo is independent and its position is not that of an insignificant subsidiary to the established planar field.

Stereo represents new opportunities, a new field of creative endeavor, a promise to all creative ability. Let us take advantage of it, even though the pictures we make are no more than those of members of the family and of events dear to us as individuals.

Herbert McKay will resume his discussion of the stereo picture in our July issue. Next month, he explains how your own stereo camera can be used to add to your vacation pleasure. Be sure to read this coming special Vacation Issue.—Ed.

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HOW TO BREAK INTO TV

By Herb Schwartz, CBS Cameraman

FROM NEWS CAMERAMAN to TV cameraman in three days! That was the interval between my last day as a press photographer for the New York *Sun* and my first show as a cameraman for the Columbia Broadcasting System, TV.

The personality and aptitude requirements for cameramen in both mediums of communication are similar, but not identical. The working conditions are so much alike that little adjustment from a press photographer's job to TV is necessary. Sometimes the hours are inconvenient in both professions. But TV has an enormous advantage—it's young and it's growing. Now that the Federal Communications Commission has released the ultra high frequency channels, the number of stations should increase as phenomenally as the number of TV sets since 1945. While in press photography, not only is the ceiling firmly established, but the walls can't expand and the door is almost permanently sealed.

As a veteran press photographer who has served more than 15 years (I'm still only 31), I think I can speak authoritatively about the limitations of the field. The current number of news cameramen, those now in the profession, can cover every event, everywhere, for all the newspapers now in existence. In addition, newspapers are folding rather than starting so there is little chance for a newcomer to break in unless death or retirement creates a vacancy.

In spite of the lack of opportunity, press photography attracts countless aspiring photographers. It is a vital, stimulating job for those of you who demand exciting work. TV is just as satisfactory and the gate is still open. Ultra high frequency is rounding the proverbial corner in a hurry and that means that there will be thousands of new TV cameras in use. Every camera in TV requires several cameramen to keep it "taking" because there's an eight hour day for men—not for cameras or telecasts!

TV requires the same type of talent and temperament that makes a still photographer successful. Alertness comes first. The quick eye and responsive muscles, qualities that enable an experienced cameraman to recognize and shoot a picture simultaneously, are necessary to cover the emergencies that arise in TV. In TV the trained photographer's eye and his reflexive response enables him to follow the star or other player if he should change his routine unconsciously during the show and move out of the pattern established at rehearsal.

The ability of still photographers in magazine and newsworld to cope with unexpected situations has become proverbial. During a show at the Stork Club an actor forgot his cue. I was on a camera covering a group of people at a table. My group had run out of talk and was beginning to gape into the camera. Instead of holding this shot I dollied up to a pack of cigarettes, the sponsor, and filled the screen with the pack. Meanwhile the actor was cued and the show continued smoothly.

Composition ranks next to alertness in importance in TV camerawork. That means old-fashioned, pictorial-type composition, framing the picture and composing

HOW TO BREAK INTO TV

Not one, but three cameras were required to shoot this wedding scene. Technique becomes a "conditioned reflex," for crews must work fast, in close coordination.

Photographs courtesy CBS



it on the ground glass of a camera. The director cues the TV cameraman on what he would like in the picture from a composition viewpoint. The cameraman takes over composition from then on as a rule. Instead of selecting only part of the negative, cropping, an almost universal practice among photographers, the TV cameraman must compose and crop right on the camera while the show is on the air. With experience a photographer often composes as reflexively as he focuses and this ability to compose and shoot simultaneously is as welcome in TV as in other branches of photography. The other requisites for TV are the usual ones: coordination, health and stamina.

There are so few TV cameramen in existence that courses in TV photography are scarce except in metropolitan centers. It seems to me that a way to learn might be to take courses in photo-journalism and TV electronics, and these are available in many schools. There are also

Ringside activity, from Madison Square Garden to (as in this case) the "Stork," makes TV camera work constantly exciting.

Scripts are carefully checked, below, before the show. Although shooting is carefully planned, the cameraman must be ready to fill in unexpected gaps.



books on TV electronics available. Motion picture photography is closely related to TV and courses are plentiful.

Once you're in—and each network has different preferences for its cameramen—you can learn as much of the technique as you please. At CBS I admitted that I didn't know a tube from a dolly when I applied. Two important words in the job, "Ready" and "Take" were just words to me. Today they correspond to those exciting commands, "On your mark" and "Go." Nevertheless I was given a job at the shortest end of the payscale, \$65.00 a week. I sacrificed top-bracket pay and generous bonuses in news work in order to break into this new medium. Today, three years later, I've almost climbed up to where I left off when I started.

You must realize that if money were the only criterion, there would be no news photographers, magazine photographers nor TV cameramen because rich men in these professions are rarer than a caveman's beefsteak. All three

offer a career filled with the satisfaction of participating in important events. In these professions you get to see and know the men and places that make history.

Specifically (as far as cameramen are concerned) CBS is more interested in composition and esthetic appreciation of good photography than in technical know-how. To show you how easy it is for a veteran still cameraman to master this related medium, here is my experience in three sentences. The first day I watched. The second day I asked questions. The third day I was at the camera on an afternoon show.

A feeling for sharp focus is necessary in TV just as it is in still photography. However, a TV cameraman has no problem of exposure or lighting. The lighting is arranged by a lighting director. There is a video man who handles alignment and working operation of the cameras and he controls the gray scale as well. He can balance the lighting and enhance the mood of a story by means of light.

Both the video man and the cameraman are responsible for aligning the camera properly. Before rehearsal and again "before air" they check the cameras on a TP, (test pattern). The test will reveal whether the camera has good picture quality and proper linearity (no distortion). Sometimes a test shows whether or not any tubes are weakening and ready to go. In still photography all these problems belong to the operator.

Other reflexive actions, in addition to speedy focusing and composing, can be acquired while working on TV cameras. In TV, the operator dollies (moves) his camera backwards and forwards and arcs (swings) it from left to right and vice versa. While making these changes, shifting

HOW TO BREAK INTO TV

focus and composing, he also moves the pedestal of the camera so it will fit smoothly with the movement of the camera. As the camera moves, sideways or back and forth, the distance between subject and camera changes and the focus must change too. The TV cameraman is constantly moving his camera, changing its angle and adjusting his focus.

All the viewing on a TV camera is done through a small TV monitor (screen) about three by four inches. The monitor will remind photographers of a Graflex ground glass.

After working on afternoon shows for a while I was transferred to my first big job with the field crew. These crews specialize in out-of-studio events. They work from trucks containing all the technical equipment needed for live TV. The field crews cover outdoor events: boxing,



wrestling, golf tournaments, etc. For me this was like coming home, as I had covered plenty of sports for the *Sun* and for Mike Jacobs of Madison Square Garden. The work was exciting and familiar. In outdoor events, anticipation is an invaluable asset. Anticipation is the sixth sense that enables an action photographer to foretell a good blow in boxing or any other movement before it is made. It works whether you use a Leica, a Speed Graphic or a TV camera. After a year with the field crew I was transferred to a new group.

On the Perry Como show I operate the Houston Crane Camera, known as "The Monster" to TV men. This equipment is rather rare. It requires the services of a cameraman and two assistants. The operator occupies a seat be-

hind the camera at one end of a sort of seesaw. He can swing the seat around and move his camera to any angle by means of foot pedals. One technician stands in the middle at pivotal point. The other technician stands at the back and runs the motor that moves the Houston backward and forward at various speeds. The steering apparatus on the Houston looks like a bar rather than a wheel and is operated by the same technician. He can see what the camera is taking on a seven inch monitor at the rear end of the camera.

The Houston can be raised 15 feet so the cameraman can shoot at almost a 90 degree angle. This camera has its own intercommunications system so that the operator can talk to both assistants and tell them where to move, raise or lower the camera and cameraman. They all wear earphones and the cameraman also wears a mouthpiece.

In the control room are the director, assistant director, the technical director who is also known as the T.D. or "the switcher," video men who monitor each camera, and an audio man who controls the sound. The cameramen on the show can talk and listen to everyone in the control room. The director and his assistant have identical scripts before them. During rehearsal they mark which camera covers what part of the show. Then when the script reads "Ready Camera One," the assistant director says, "Ready," to that operator. When that camera is supposed to take the scene, the director says, "Take." Red lights then appear on Camera One as soon as the technical director (switcher) presses the button to make the switch.

To dissolve (switch) from one camera to another, the assistant director says, "Ready, dissolve from one to two." The director says, "Dissolve from one to two." And the supervisor presses the appropriate buttons to make the change. This technique applies to what still cameramen call "photomontage" and TV people call "super." The T.D., not the cameraman, does the superimposing of one camera image over another, or even four superimposed images, by means of buttons in the control room.

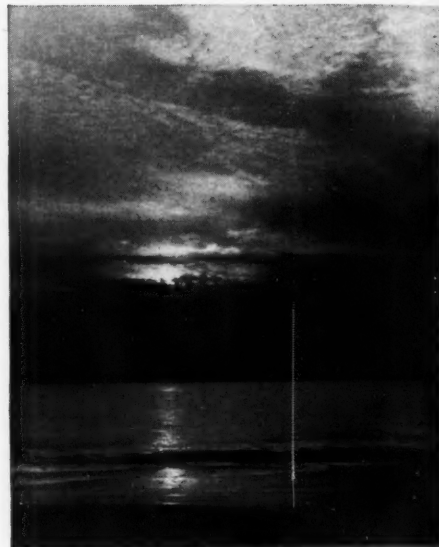
During a show the cameramen consult the control room about any unexpected difficulties that arise. It may be impossible to take a shot that was rehearsed. Perhaps the camera can't move in close enough or the cameraman may be afraid he's getting too close and may interfere with the camera that's on the air. Sometimes the lights flare into the camera during a show although they didn't at rehearsal. Lights flaring into the camera may ruin a \$1500 picture tube and knock the camera out for the duration of the show.

With alertness the winning attribute and composition second, third place in the makeup of a TV cameraman belongs to willingness to learn. Nearly every professional, documentary magazine and news photographer possesses all these qualities to a marked degree. There are many aspiring photographers who share not only these qualities but the desire to make photography their life's work. Since professional still photography is no longer expanding rapidly, why not add another attribute, pioneer spirit, and aim at using all your photographic talent and training in a new medium—TV?

SEA, SAND AND SUN

Text and photographs by Hans Kaden, FPSA, FRPS





SEA, SAND AND SUN

WRITING these lines in the middle of winter to meet the deadline, I cannot help but reminisce about the wonderful days when, after having taken pictures of a glorious sunrise, my companion and I would settle down in the warm sand of the dunes, enjoying the peace and the beauty of sun and sea. You are all alone; there's no human being in sight. It is only the vastness of the sea, the glory of the sun, the coziness of the sand, the ever present rushing of the breakers—and you. Picture taking is forgotten for a moment, you have *them* in the bag, or, at least, you believe you do after the excitement of watching the sun playing crazily on the gentle breakers in ever changing unpredictable patterns of light.

This is an experience you yearn to live through again and again, never getting tired of it. In no other field of photography have I ever experienced this deep emotional sensation of peace and beauty. Surprisingly, very few good pictures of sunrises, or sunsets, over the ocean are to be seen in present day salons. Sunsets generally form the major part in this group. It is in all probability the time factor which accounts for this; it is more convenient to wait for a sunset than to rise early enough to be on the beach before sunrise.

There are a great many different subjects along the shore, suitable for a pictorial presentation but before I talk about dunes, patterns, boats, fences, fishermen and others, I should like to pass on to you some of my experiences with sunrises, which are my favorites.

You cannot miss, really you can't, if you plan your trip carefully as to time, place, season and water condition. You don't have to live at a shore resort (although this would be more convenient) to experience the thrill of shooting a good sunrise after the trouble of driving a few hours before dawn.

Where to go? Here in the east we are close to one of the most photogenic shores, the New Jersey shore, but you will find excellent opportunities along the Virginia shore as well as on the west coast and along lakes everywhere.

A large body of water in any case is to be preferred to small lakes or rivers where the opposite shoreline will show up as a black line, dividing the picture into two parts. Sky and water should be in tonal balance. This harmony will be unpleasingly disturbed by the dark line of the opposite shore.

Let me point out a few factors of importance in taking sunrise pictures.

1. *The Sun Must Not Be Too Bright For Shooting Into The Sun.*


Usually a haze is hovering above the immediate horizon in the morning, but there are days when this haze is missing, sun and sky is extremely bright (too bright for any photographic emulsion) and the haze cuts down the brightness considerably. When the sun appears over the horizon, its color is a deep red, changing slowly or quite fast over orange to an extremely bright blue-white. The duration of the "transition" depends on the prevalent haze. Only at the orange stage is it possible to shoot into the sun, if you wait longer the sun will be completely burned up or even solarized. "Ghost suns" may appear on the negative.

These ghost suns, visible on the negative as large soft-edged dark spots are caused by reflections of sun rays

on the metal of the lens barrel or the blades of the diaphragm. The deep orange color of the sun will not cause ghost suns.

On the other hand, if you shoot too early, at the red stage, the light reflected from the sky will not be actinic enough as yet to give satisfactory details in water and foreground. The red stage is excellent for color, it gives the most beautiful slides, try your Kodachrome on it, but for black-and-white wait for the orange and stop shooting when the sun is too bright for your eyes. You can really go very well by that. If you can look comfortably into the sun your film can take it, too, but if the sun is too bright for your eyes it is also too bright for your film.

Since the orange stage lasts only from a few minutes to ten or 15 minutes you have to be on the selected spot before the sun appears on the horizon.



At the left on the opposite page is a sunrise, the reflection of which is broken by the waves. Beside it is an example of the monotonous effect of too many horizontal lines in a picture. Neither of these is as successful as the one on this page where the reflections and the passing boat give greater interest to the photograph.

2. *There Should Be A Fairly Large Expanse of Water In The Immediate Foreground.*

The beauty of sunrise and sunset lies in the soft reflections in the water, mud or wet sand. A large area of dry sand in the foreground makes the picture dull. We are here not working for sand texture but for the pattern of light on wet surfaces and on water.

Watch your foreground, it is the most important part in the picture. To capture the reflections in the foreground, it will be necessary to choose a viewpoint close to the waterline. With the ever rolling breakers the waterline itself changes, constantly forming a different foreground pattern.

After you have set up your camera on a tripod or secured it with the strap around your neck, forget the sun for a while and keep an eye on the breakers. I prefer to use the wire finder. It allows me to watch the breakers coming in. I follow every one of them until I have them in the finder and make the exposure whenever reflections and the waterline are interesting.

3. *The Foreground Waterline Should Not Cut Across The Whole Picture Area Horizontally.*

Take a look at the accompanying picture, right. Here, the water's edge, breakers, the horizon line and the clouds form an uninteresting pattern of horizontals, dividing the picture into several parts. Compare this with the picture on page 27. Notice the waterline leading in graceful curves towards the distance and the rising sun. The most desirable component of a good composition, the perspective, is strong on the opposite page but entirely absent here.

To avoid weak compositional lines, it is advisable to select a viewpoint which allows the waterline to carry through the picture more or less diagonally into the distance.

4. *The Point Of View Must Be Predetermined.*


We must know beforehand where to set up the camera. Study ahead of time the shoreline you have in mind. Note the direction of the shore in relation to the rising sun. A sunrise taken directly across the ocean will never be successful.

5. *Good Foreground Material Will Greatly Improve The Picture.*

Once in a while I hear someone say, "When you have one sunrise you have them all." Nothing is further from the truth. True, sun and the water are always the same, but you will find infinite variations in the water conditions and in the foreground matter. You may take 100 sunrises and everyone will be different. The lines of the breakers change and never repeat themselves. The water may be rough or calm, you may stand on a shallow beach (which I prefer) or on a rock against which furious breakers roll incessantly. The foreground may be a sandy beach with puddles of water left by the receding tide or some weather-



Above, the top of the pilings coincides with the horizon line in a disturbing manner and the horizontal lines tend to make the picture too monotonous for enjoyment. At the right, the human figure adds interest to the sunrise and the diagonal lines of the waves give a feeling of movement to the picture.



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take the
human
lines of

beaten pilings give a strong accent. Beached fishing boats, ropes, dune grass, sea gulls or human beings are only a few more of the foreground possibilities. But don't clutter up the foreground. A sunrise with pleasing water pattern can stand on its own.

6. The Horizon Should Be Kept High Or Low But Never The Middle Or Too Close To It.

Cloud formations are usually not strong at sunrise. For the most part they are high, fleecy cirrus clouds, but they can be attractive. Decide here which is stronger as a picture component, the sky or the foreground. If the sky is cloudless or uninteresting, keep the horizon at about two thirds or three quarters up and make it a foreground picture. If interesting cloud formations should be present, give the sky two thirds of the picture space and one third to the foreground.

Below, the wave forms create interest. These are ever-changing and no two successive pictures will be alike. Take several exposures for best results. Across the page, although the waves are nearly horizontal in the picture, the reflection of the rising sun is broken and much more interesting than a single long streak of light on the water would be.



7. Use Of Panchromatic Emulsions Without Filter Is Advisable.

Because of the reddish light from the morning sun any other emulsion will fail. No filter should be used; the reddish light alone will hold back the excess of blue from water and sky, just as a filter would do, but only panchromatic emulsions will respond to this.

8. Keep The Sun Close To The Vertical Center-line Of The Picture Space But Not On It.

This is often neglected. Strategically the best position for the sun is slightly to the left or the right of the center. Placing the sun too far to the side will disturb the tonal balance, considerable "burning-in" in printing will be necessary to balance the sky.

9. Avoid A Straight Uninterrupted Line Of Sun Reflection.

Try the "lost and found" effect. Watch the rolling breakers, especially in the foreground, and shoot whenever the breaker cuts into the reflections. The effect is more pleasing.

10. Keep Your Lens Free Of Condensation.

The humidity and an ever-present fine spray might settle down on your lens, resulting in a fogged picture. Keep your lens covered until you are ready to shoot. Instead of a lens cap a handkerchief hung over the lens will do. Keep lens tissue at hand and clean the lens carefully before shooting.

11. Make At Least A Dozen Exposures.

Every negative will show a different pattern. Examine them leisurely. If the viewpoint was well chosen one or two out of a dozen may be outstanding—a good average.

A few words about the equipment. The small camera, $2\frac{1}{4} \times 2\frac{1}{4}$ to $3\frac{1}{4} \times 4\frac{1}{4}$, is superior to the larger camera because of the greater depth of field of the shorter lenses. To achieve sharpness all the way through make use of the hyperfocal distance (see AMERICAN PHOTOGRAPHY, March, 1952). Too short lenses will, however, render the sun too small in relation to the scene.

The exposure for a sunrise over the ocean can be standardized. For $2\frac{1}{4} \times 2\frac{1}{4}$ film of medium speed, like Super XX, I found $1/100$ at $f/11$ satisfactory, for $2\frac{1}{4} \times 3\frac{1}{4}$ with $f/16$, $1/50$. Kodachrome exposed $1/10$ at $f/6.3$ has given excellent results, but because of the relative slow exposure the water should not be rough.

The untold pictorial possibilities along the seashore I shall discuss in a follow article. It will be of interest to beginners and advanced workers, to amateurs, professionals, purists, modernists and conventionalists and especially to those of you who want to get enjoyment out of a picture trip. In the meantime, won't you try a few sunrises?

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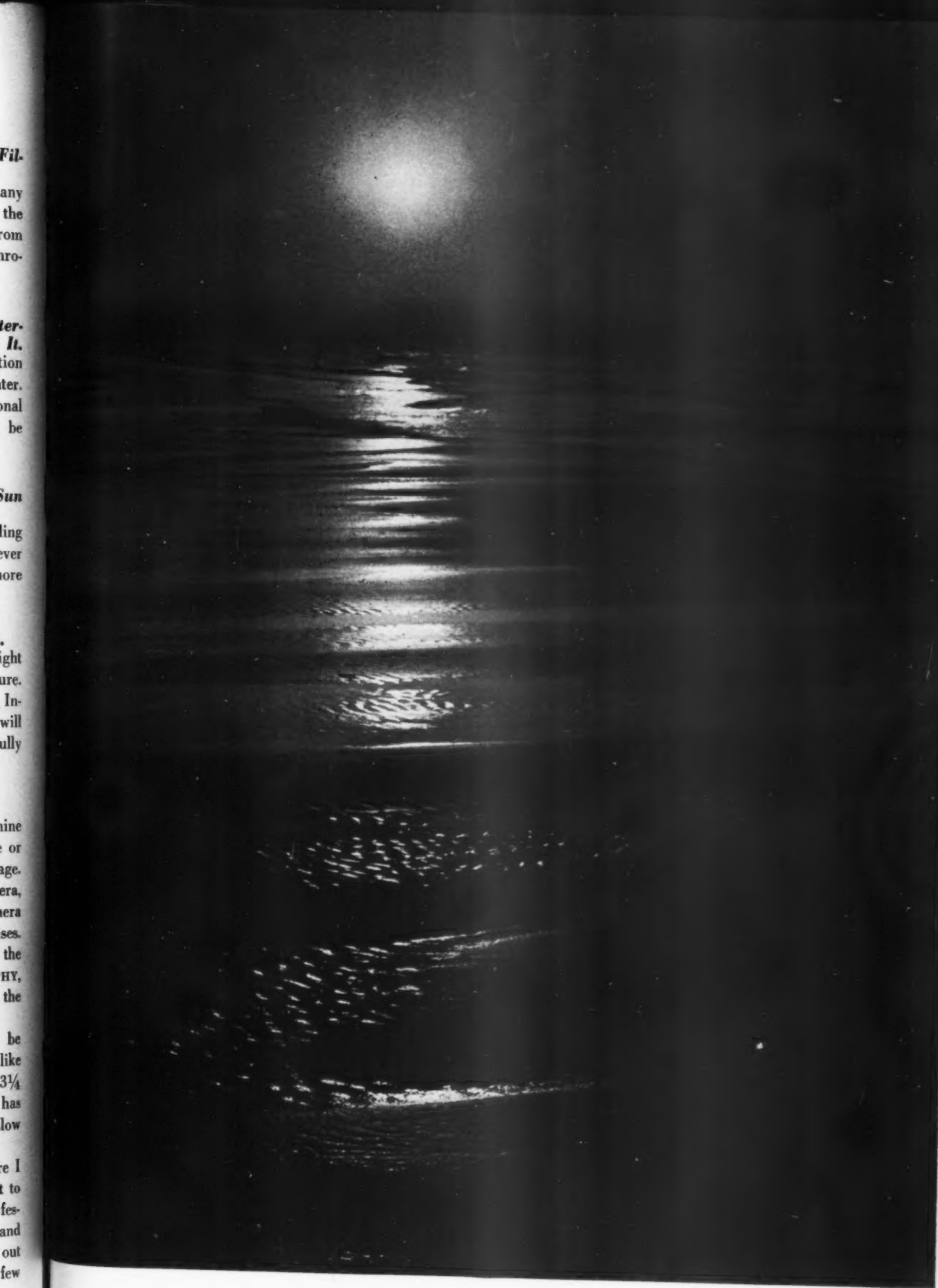
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PHOTOGRAPHY IN HIGH



We are told that a worthwhile hobby is necessary for the full enjoyment of adult life. Photography, one of the leading hobbies today, can be lavish or inexpensive, simple or complicated, and, through camera clubs, lead to lasting friendships. Possibly this is the most important of all the objectives that can be developed in the teenager. In what better place can he start, then, than in his high school photographic workshop?



IN A PREVIOUS ARTICLE photography was discussed as an extra-curricular activity. The purpose of this article is to take up the teaching of photography as a regular classroom activity. Unless enough pupils are interested in the subject, a class in photography cannot be organized. Yet, although many pupils would welcome such a course, very few schools offer instruction in photography.

A reason for this is the near impossibility of teaching photography in an ordinary classroom because of the darkroom work that is necessary. An ordinary classroom with movable seats can readily be adapted for lectures and demonstrations and studio work can also be done here with a little ingenuity. Even if the room has dark blinds or shades, such as those used when films are shown, printing and enlarging may be done also. In order to process panchromatic film, however, a room must be really *dark*.

A practical way of meeting the problem is to partition a room into two parts. One part is left light, but has dark shades and movable seats. This section may be used for lectures and demonstrations. The other part of the room is broken up into a number of small darkrooms, each provided with working space where films may be developed and contact prints made. A few of these small darkrooms also should have enlargers. All of these rooms should open on a dark hallway so that the instructor may go from one room to another without danger of light leaking into the room. Proper ventilation must be provided and each room should be large enough to hold two or three pupils.

This type of installation is expensive, particularly since only a few students in the school may use the room and it cannot be used for any other purpose.

Of course, a "notebook" course can be given, where topics of photographic interest are discussed, reading and paper work assigned and the pupils directed to make out as well as they can using home equipment (or to take turns at the school darkroom). Since student's equipment will vary greatly, and since some may be financially unable to buy proper and adequate equipment and materials, it is difficult for the teacher to hold the class together and do efficient teaching.

Should the photography class be in the science department or in the art department? There is much to be said on both sides. Certainly the techniques of photography can be taught by any competent science teacher. To teach pupils how to make pictures which are good from an artistic and commercial point of view requires more than

H SCHOOLS II

Text and photographs by Harold Swahn





PHOTOGRAPHY IN HIGH SCHOOLS II

technique, however. A background in art will be a big help. Chemistry and techniques used in the darkroom are so closely related that it is unnecessary to say much about it. Physics teaches, among other things, valuable material on light, color and lenses.

A class in photography, once organized, may have such wide appeal that prerequisites can be set up. A term of chemistry, taken either previous to or parallel with the photography course is a reasonable request.

The topics in a photography course will depend to a large extent not only upon the interest of teacher and students, but upon the available facilities as well. A prospectus of the course might include a discussion of the following topics.

- | | |
|--|------------------------------|
| 1) History of photography | 8) Toning |
| 2) Types of cameras, lenses and shutters | 9) Print retouching |
| 3) Negative emulsion | 10) Mounting |
| 4) Exposure | 11) Portraiture |
| 5) Development | 12) Synchroflash photography |
| 6) Enlarging | 13) Copying |
| 7) Negative correction | 14) Composition |
| | 15) Color photography |

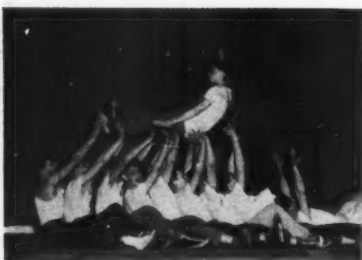
Some of these topics can be taken up in a day or so, while others will require several meetings. Depending upon the instructor, some topics would be dropped, others added.

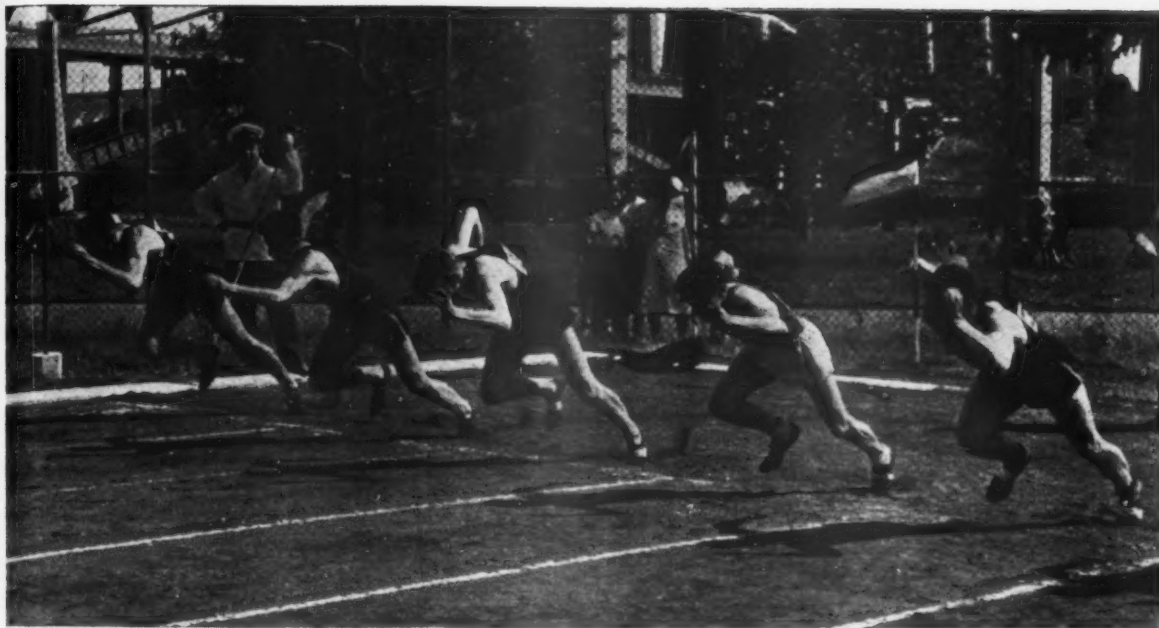
Method of presentation will vary. A lecture, illustrated with a few lantern slides, would be adequate for the history of photography. Lectures and class discussions, demonstrations and simple student experiments may be used for the work on photographic optics. But the real meat of photography—developing, printing, enlarging, spotting—must be done by the students, not once, but several times.

By breaking the class up into two groups, so that one is working in the studio while the other is using the darkroom, class equipment can be made to give the most use. This requires careful planning on the part of the teacher.

Desirable objectives that may be taught or developed in a photography course are many. Since a few pupils may turn to photography as a vocation, they should be provided with a sound scientific and technical foundation. Neatness, cleanliness and accuracy in class work should be stressed from the start.

A more general objective would be that of helping the adolescent to "find" himself photographically. This may take place as part of group work or in school assignments that may require outside contacts, such as photographing a small child, a man at work or a store front. In this way, the student learns to make contacts with adults on an adult level and to grow in his photographic concepts.





Almost every area of high school activities provides an experimenting ground for young photographers. They will gain a great deal from utilizing the diversified opportunities.



THE EXPOSURE METER:

Your Handiest Second Tool

PART II

Text and Photographs by A. John Geraci

A GOOD QUESTION which arises in the minds of photographers after they have learned to use an exposure reading tool and have become more acquainted with the aspects of exposure technique and as they are going to take pictures is "what is really the correct exposure?"

One is aware that there are many exposure determining instruments to aid the photographer: the Weston meter which reads reflected light and incident light when modified with the Invercone, the Norwood incident light meter with its Photosphere, the GE meter, the S.E.I. photometer, with its ability to read pin-points of light brightness, the American Standards exposure computer which integrates the data for taking a picture in book form, the simple extinction type meters, and the Eastman Kodaguide, a simplified computer.

In order to understand what information these meters are giving to the user it is necessary to be familiar with the typical density vs. log exposure curve or the characteristic curve of a typical film which we are using in our camera. What does this characteristic curve mean?

It means that if we start a series of many successive exposures from very short exposures to very long ones, the latter maximum exposure being many times the minimum exposure, and then measure the density produced by the standard development procedure, the data obtained would yield the curve shown by plotting the density produced against the log of the exposure time.

We observe that at minimum exposure times the density increases very slightly up to a point, then it begins to increase at a constant rate with the added exposures up to another point, and then increases at a slower rate as in the toe of the curve, and finally with tremendous over-exposures, a reversal effect or decreasing in density is

the result. These portions of the curve are given particular designations which identify them. The toe portion, the straight-line portion, the shoulder portion and reversal portions of the characteristic curve.

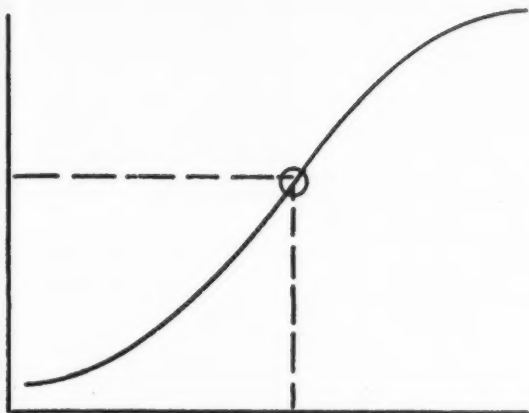
By the use of this curve we can now describe the several methods by which film speeds have been rated up to the present time to be used for future exposure settings.

It is necessary to understand that absolute values of film speed have little meaning inasmuch as speed or film sensitivity depends largely upon the particular processing conditions. (The negative-exposure-development relationship will be covered more fully in another article after this one.)

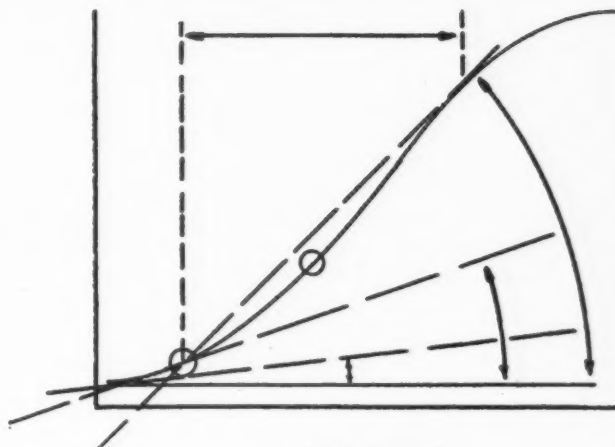
The values which we use are relative speed values. Comparisons of different films can be made under the same system. The speed ratings of the different systems have an approximate numerical relationship. In each system a number is assigned to the film derived by the particular method used and which indicates its relative speed. There are published various film speed conversion tables which give a listing of the various systems with approximate respect to each other.

One of the first and earliest methods of determining the relative film speed was based on the threshold speed of the film. This point was designated on the curve as the least observable density on the film. This method was known as the Scheiner method of speed rating. However, inasmuch as there is no fixed relationship between the threshold exposure and the exposure which is required for satisfactory rendering of graduations, this method was considered inadequate for use.

The Germans modified this method by measuring the exposure necessary to produce a given density. The DIN



Weston Speed



ASA Speed

In order to understand how exposure meters work, it is a good idea to be familiar with the density vs. log exposure curve. Geraci describes the principles of the various ratings in his article.

system derived the speed rating from the necessary exposure required to produce a density of 0.1 above the fog level of the film.

When the straight-line portion of the characteristic curve is extended straight to intersect the log-exposure axis, an exposure value is indicated which is called the inertia of the film. The H-and-D speed rating is based upon this fact. Hurter and Driffield were the first to produce the characteristic curve of a film and employed this method of determining the speed ratings of their films. However, this method is limited in scope so that it has been discarded in favor of others which have included factors which affect exposure determination.

The Weston method is a modification of the H-and-D speed in which both inertia and latitude of the emulsion are considered. The Weston speed is determined from the density-log E characteristic curve of the film which is processed to the value of gamma most often used in practice for the particular film.

The emulsion speed of any film is inversely proportional to the exposure required to give a particular density. So that the simple formula would read as follows:

Weston speed number equals:

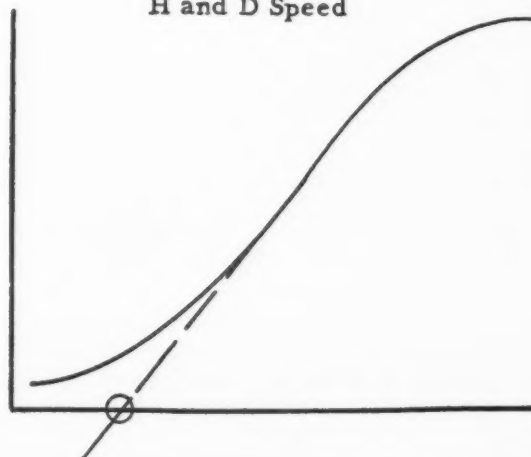
$$\frac{1}{\text{Safety factor} \times \text{exposure to give 1.0 density} \times \text{gamma of film}}$$

In other words, if it required 1/200 sec to produce a density of 1.0 of the film which is developed to a gamma of 1.0, the Weston speed would be 50.

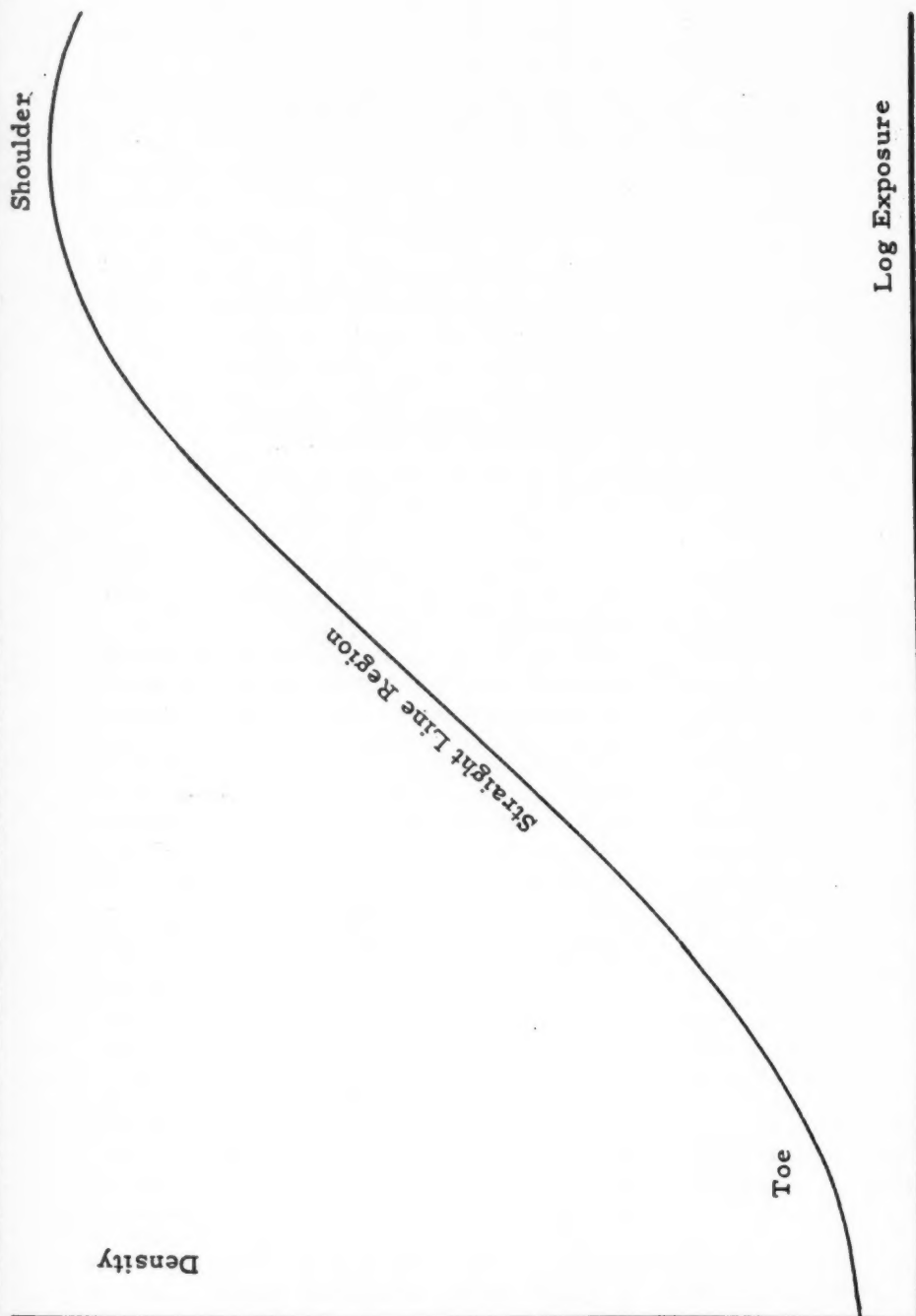
The fourth method discussed is the American Standards Association rating or ASA value as it is known. This method takes cognizance of the practical aspect of making an exposure. Obviously the speed of the emulsion is de-

termined by the exposure necessary to reproduce the brightness differences in the shadow portion of the subject matter. Speed as we know it then, is determined by the exposure necessary to produce required differences in density and not an exposure to give any particular density. Density differences of the exposed emulsion determine the slope, or gradient, or gamma which is another name for it, of the characteristic curve. The maximum density differences or maximum gradient decreases as the density differences decrease as it goes into the toe portion of the curve. The minimum useful gradient then would be the point at the toe portion of the curve when the density differences just produce the acceptable tonal differences of the subject matter. This is the principle involved in the ASA rating.

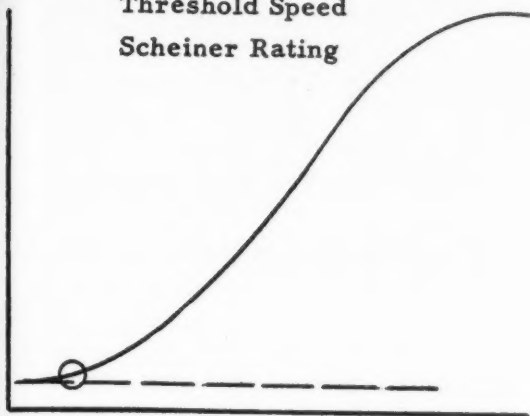
H and D Speed



THE EXPOSURE METER: YOUR HANDIEST SECOND TOOL



Threshold Speed Scheiner Rating



At the left is the typical response-curve of film and the range of possible negatives. As exposure is increased, the density begins to rise slowly, at the TOE of the curve, then increases at a regular rate through the STRAIGHT LINE portion, and finally as exposure is greatly increased, the response falls off and finally after the SHOULDER portion is reached, actually reverses itself.

Most exposures—if they are anywhere near “correct”—fall in the straight line portion, an area which for most films in general use allows an “error” of one or two stops from the “ideal” exposure.

In the small illustrations, opposite, the extremes are negatives which will print very poorly. At one end the film is under-exposed and at the other, over-exposed. A change of development time will not correct either of these faults. The other negatives, however, even though they vary considerably, will all produce acceptable prints if they are used with the proper paper grade. This, again, illustrates the wide latitude possessed by modern film emulsions. The margin of error is very large.

The proper exposure of any negative is determined solely by the excellence of the print that can be made from it. This is in turn dependent upon the judgment and opinion of the observers or observers of the print. Proper exposure, then, is not a precise thing and is meaningless as an exact value, unless you know what you are after in terms of the print. The selection of what might be considered the best print leaves a good deal of latitude for argument. As a matter of fact the ASA readings are based on such a visual selection as to what constitutes the best print from negatives of the subject.

According to the ASA method and with the use of the equation which indicates the inverse relationship of speed rating to exposure, the ASA speed rating is given as follows:

$$\text{ASA speed number equals: } \frac{1}{\text{exposure (E)}}$$

where E is the exposure at the toe where the gradient angle is 0.3 of the average gradient angle over a log E range of 1.5.

This numerical value obtained is called the ASA speed index number and in order to get the ASA exposure index number as we know it and use it in our exposure meters, this exposure value is multiplied by four factors which allow for sufficient safety margin for other exposure influencing factors involved.

In order to illustrate the conception of the characteristic curve and to clarify what takes place, we can actually make a series of exposures which covers the range of the characteristic curve.

Let us set up a mannikin head and light it to give a balanced portrait lighting. Let us take an exposure reading using the Weston meter and the Weston exposure index number. Make an exposure. Let us take a Norwood meter reading which uses the ASA ratings and make an exposure. Then take one fourth of the reading and make an exposure. This will give the minimum useful exposure that one can work with under normal developing and printing conditions. Take an exposure which is definitely underexposed by the Weston meter. This can be easily accomplished by taking the reading at nearly the U position on the dial control scale. Take two more exposures, one twice the Weston reading and one 8x the normal Weston reading. This later will be over-exposed.

What have we actually done in making these exposures in this way? We have placed the gray scales of their tonal values as we have indicated on the graph of the characteristic curve. It is possible now to compare the negative result with its position on the characteristic curve.

If we re-examine the exposure determining tools it is apparent then that these instruments and exposure guides may give different exposure data and we find that they do and we can very readily now see by our characteristic curve the manner in which they may differ.

It would be interesting to go a bit further to see by the use of some of these exposure tools just how much the exposures would differ in a particular situation.

Before we do that however let us take a quick informative look at how the manufacturers design their instruments. The ASA has adopted certain specifications for the design of all meters, both reflected and incident light types. The mathematics involved specify a certain meter constant number which has to do with the mechanical and electrical factors of the meter construction.

For incident light meters, this numerical factor is a number between 15 and 30. This means that by virtue of their design alone the incident light meter may differ as much as 2:1 in determining the same exposure for a particular subject situation.

For the reflected light meters, this numerical factor is a number between 1.0 and 1.35. The Weston meter design uses a number constant of 0.8. Thus it is readily seen that this also means an almost 2:1 difference in exposure determinations due to meter design.

This is the reason why different meters may give different readings, taken from the same place of the same subject situation (an excellent mathematical explanation and exposure determination using color film is given by Greenleaf, *Photographic Optics*, page 151).

In order to check what practical readings the different meters would give under different light conditions, four different situations were checked with the Norwood meter, GE meter and the Weston meter as reflected light meter and with Invercone.

Looking over the results one can see that the spread of exposures runs from one to five times the exposure readings of the different meters taken under different light conditions. Even so it is observed that this spread of exposure is easily taken care of by the wide latitude of the black-and-white film as shown by the mannikin negative exposure-density relationship. This also indicates why it is that printable negatives are obtained despite the wide differences of exposures. It shows that in the straight-line portion of the curve the main difference of each negative taken at a different exposure is the amount of density produced on the negative. This makes only a difference in printing time.

The understanding of the exposure-density relationship and the clear knowledge of the characteristic curve brings the potential creative photographer one step closer to being able to achieve his artistic aims.

METER COMPARISON TABLES

Readings were tabulated for the mannikin shot illustrating the article:

Norwood	1/10 sec	f/12.7
GE Hood off	1/20	f/12.7
Weston Refl	1/10	f/12.7
Inver	1/15	f/12.7

Readings were taken for medium distance picture in bright sunshine:

Norwood	1/60 sec	f/32
GE baffle closed	1/25	f/32
Weston refl	1/50	f/32
Inver	1/80	f/32

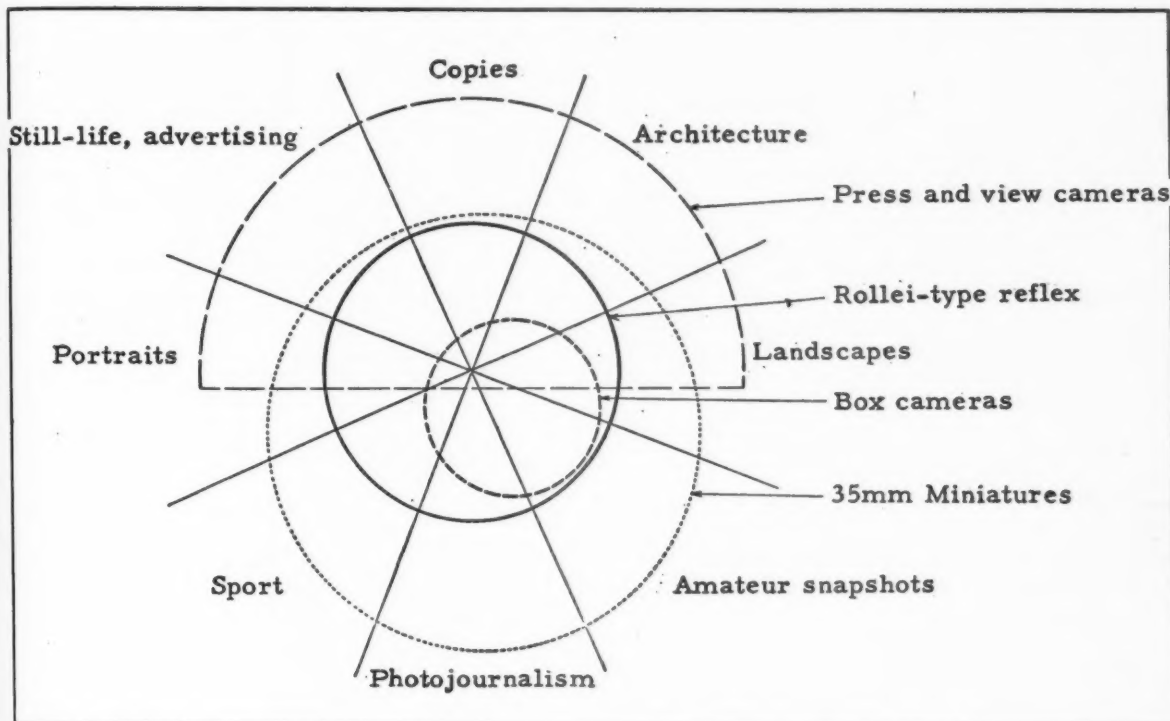
Readings were taken for medium distance in overcast late afternoon light:

Norwood	1/10 sec	f/22
GE baffle		
opened	1/15	f/22
Weston refl	1/20	f/22
Inver	1/25	f/22

Readings were taken for indoor natural light interior shot:

Norwood	4. sec	f/22
Ge hood off	10.	f/22
Weston refl	2.	f/22
Inver	5.	f/22

WHAT KIND OF A CAMERA SHOULD I BUY?



With this chart you can help decide what kind of camera equipment you should buy for yourself. See the article for a fuller explanation. This illustration has been adapted from an article by Dr.-Ing. Helmut Nauman, in the Dec., 1952, issue of *Photo-Magazin*, Munich, Germany.

ONE OF THE MOST FREQUENT QUESTIONS coming into a photo magazine editorial office—or addressed to a professional—is the seemingly simple one, “What camera shall I buy?” This is one of those “simple” questions which are impossible to answer satisfactorily.

There are hundreds of different types of cameras made or imported into this country. How many, no one knows exactly. Which one is for you? In the last analysis, this is a question for which only you can find a reasonable answer, but there are two general guides to making up your mind.

The first of these is the type of work which you will be doing with your camera, the second, the double one of how exacting your standards are and how much you want to pay for your equipment.

In the first place, we can take a chart such as the one on this page and divide it into pie-

shaped wedges to include the more common classifications of subject matter. If you are the active type and like sports you will find one wedge with that label and opposite it, a classification for a distinctly different type, architecture. A camera ideally suited for one is not one as well suited for the other.

The various circles indicate this. At the top, the half circle indicates the types of subjects where it is preferable for ease of work and good results to use a view camera (or possibly the 4x5 or smaller press-type cameras which have a rising front and perhaps other adjustments).

The smallest circle indicates the subject matter and the relatively small limits of adaptability of the box camera or simple folding model with few adjustments and flexibility. The other types lie in between these, and on the chart the small reflex has been set up as "normal" although there are experienced workers who might disagree with this rather arbitrary ruling.

The chart is probably pretty much self-explanatory and can be interpreted to get some hint of the type of equipment best suited to the individual's interest. This still does not answer the question of which individual camera to purchase. In each of the several types there are dozens of brands, new and second-hand, in all price ranges.

The choice now narrows down to how exacting your own standards are and how much you have left to spend after March 16 taxes. If you want the best, you must expect to pay for it. In photography as in any other field there is no substitute for quality. For the sharpest of negatives, a good lens is necessary. For ease and rapidity of action, the necessary adjustments must be built into the camera.

For the experienced, good buys may turn up in small dusty shops and on the pawn-ticket counters. For the less experienced, there is no substitute for the guidance of a well-established camera department or store. Many of the large, well-established houses will let you try a new camera for a roll or two of film to see whether its control arrangements suit your hands and your finger and eye habits and whether it delivers negatives of acceptable quality before the sale becomes final.

There will also be proper guarantees against mechanical failure on new equipment and on some second-hand material. Buy wisely and know what you are getting for your money.

Think about what type of work you most want to do, look carefully at the cameras of that kind within your price bracket, be sure that what you buy is fitted to you as an individual. Have fun.—G. W.

CAMERAS ADD TO VACATION FUN!



This striking shot of Zion Canyon was made by Willard Luce of Provo, Utah. This black-and-white is from a 4x5 Ektachrome which was made in a Graphic View, 1/5 at f/19. The shot won Mr. Luce an honor award in the 1952 Graflex photo contest. Your vacation shots can be equally skillful. Watch for the special Vacation Issue (June) of AMERICAN PHOTOGRAPHY on your newsstands.

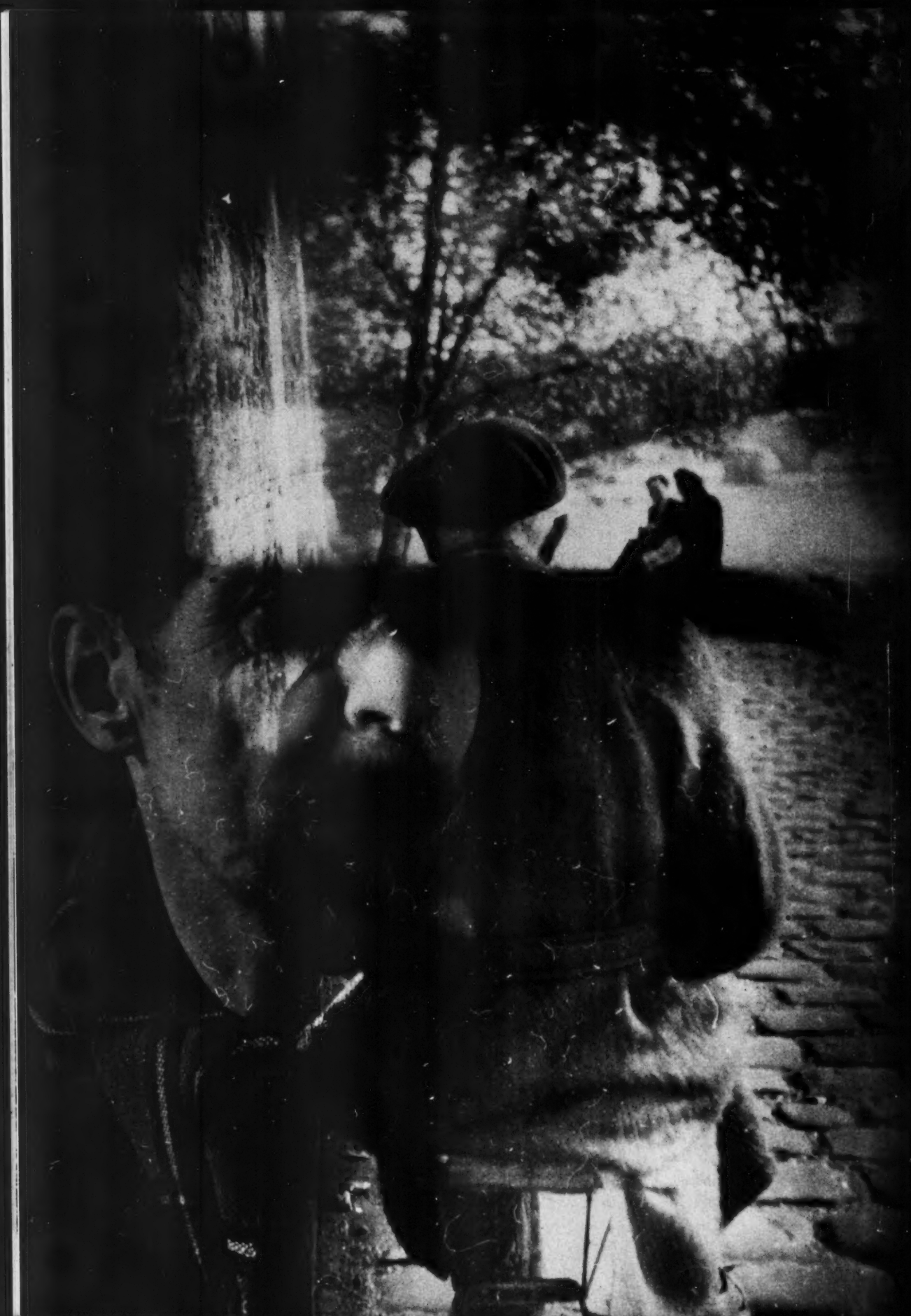


VAL TELBERG: A PORTFOLIO





The unique multiple-negative effects made by Val Telberg were presented to the photographic audience by *AMERICAN PHOTOGRAPHY* in October, 1950. At the time, we pointed out that it was outside the usual field of photography and was a very personal method of expression. Because it is so personal, it may not be understandable and appealing to some. The fragments of images which he uses to produce his dreamlike prints may not be meaningful to some—and, indeed, may mean different things to different persons. For some of these prints reproduced here he has combined many negatives, sometimes using two enlargers to get the result he wants. This method





Val Telberg

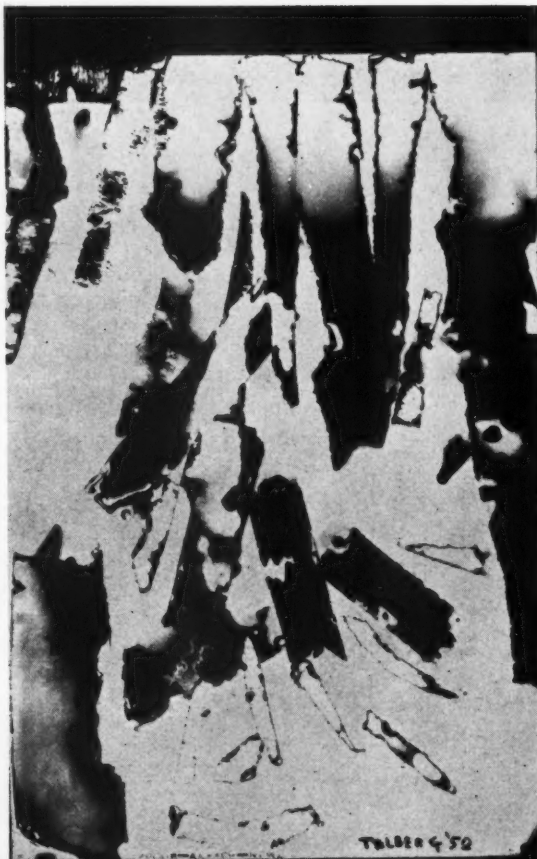
makes each of these an "original," impossible to duplicate exactly. The other abstract prints, which represent a newer approach for Telberg, have been made with various chemical crystallization techniques. Some of these are black-and-white reproductions from color transparency originals.

Since the original publication of his work in *AMERICAN PHOTOGRAPHY*, Telberg worked for many months in Europe before returning to this country. Today, he is in Mexico experimenting along new lines of expression.

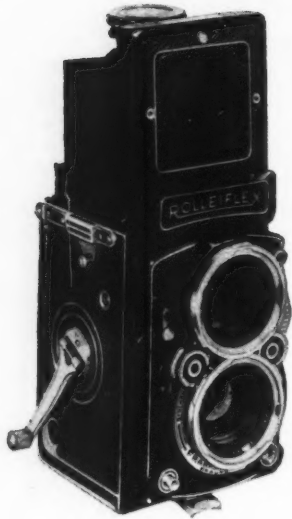
Since these pictures represent such a personal view-point, they constitute, not a guide for imitation, but a suggestion that the photographic medium is fluid and that there is no end to exploration.



Val Telberg







INTRODUCES:

Above, left, is the new Rolleiflex soon to be distributed to dealers. Visible here are the new $f/2.8$ Xenotar 80mm lens and the new, adjustable focusing magnifier which mark the new model. Other features are shown in the other illustrations and described in the text.

COMplete re-design of controls and a radically new lens mark the new model Rolleiflex which will appear in camera stores within a few weeks. As will be seen in the illustrations on these pages, the positioning of the controls is the same and no "learning" will be required by those familiar with the operation of the older models. However, there is a new convenience of operation and additional safeguards against mistakes in use.

Some of the changes incorporated into this fine post-war design were developed from suggestions of keenly interested Rollei users. Our own American experts of the Burleigh Brooks Co. are proud of the fact that some of their suggestions were deemed worthy of consideration.

Many of the changes incorporated into this first post-war design were suggested by users—many of them American—and by the experts of the Burleigh Brooks Company which distributes Rolleiflex products in this country.

As will be seen from the illustrations, the first impression of difference is in the size of the taking and viewing lenses. The lens which forms the picture is of a new design-type and one which for the first time incorporates the advantages of coated surfaces as part of the construction of the lens itself. It is an 80mm $f/2.8$ Schneider Xenotar. According to the company, its definition approximates that of four element $f/3.5$ lenses at the center and when definition is measured at points 15° and 30° off center (the usual standards) is actually superior.

Previous lens designs have had to avoid air-spaces as lens elements as much as possible because of internal light flare in the lens. In this lens, however, the use of coated surfaces has made it possible to use two air-spaces (in

addition to the one at the diaphragm) and five elements for a significant increase in light-gathering power without loss of definition. The user is assured with this design of even illumination in the corners of the film—a feature which will assure more satisfactory printing of his negatives—negatives and color transparencies.

The viewing lens gives an exceptionally bright image and as an additional help a field lens will later be available. This latter will drop down on top of the ground glass, since introducing such an additional element anywhere within the optical system will slightly alter the focal length.

(The two lenses are presently matched to a tolerance of $1/100\text{mm}$ —.01mm.) An additional aid to accurate focus is provided by a built-in magnifier above the ground glass which can be focused to individual eye-sight and a similar one at the back for eye level viewing.

Other new features include a large focusing knob with silver figures on black for clear reading. This knob also has a film-reminder which is easily set for both film type and ASA speed. In addition, the counter knob for 35mm adapter is now part of the standard equipment of the new model.

The speed and diaphragm setting controls now have an ingenious locking device. When these knobs are turned in a normal manner the locks are automatically released. When not being intentionally moved the lock prevents change from accidental friction. There is a similar lock on the combined finger release and cable socket. This lock, in addition, makes it possible to take time exposures by locking the shutter open for the desired time.

THE NEW ROLLEIFLEX 2.8C



Above, is the rear view of the Rolleiflex showing the larger focusing knob and the 35mm counting knob which is now standard equipment. Also visible is the magnifier at the rear of the hood for eye-level viewing. This magnifier is adjustable for individual eyesight.

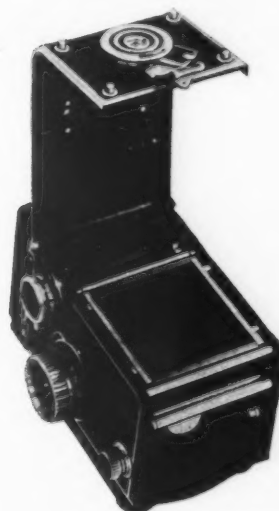
Most striking is the provision for intentional double or multiple exposures. There is a new catch at the hub of the film advancing crank. When this is slid to one side the shutter may be re-cocked without advancing the film by turning the crank backward.

Another and completely revolutionary feature in the design of the new Rolleiflex is the tripod attachment on the bottom of the camera. There is the usual socket for standard tripod screws, but this is centered in a new circular plate which has a groove around its circumference. In the near future, a tripod head will be available on which the camera may be set down and a short turn of a lever will firmly anchor the camera. This promises to be one of the most convenient innovations in design since the war.

On the front of the camera opposite the release trigger, the socket for flash connection has also been re-engineered. This new socket will accept both the old standard Compur tip and one which is supplied with the camera. In either case, the tip is inserted and automatically locks in until released by another simple sliding catch.

There are many other features which will be appreciated by the user. The interior has been baffled to prevent any fogging, the spool knobs cannot be loosened when the back is closed, and the back hinge is now arranged so that it cannot be accidentally separated when it is opened. The carrying case has also been modified and a new, simple catch provided on the body of the camera for a carrying strap when the camera is used without a case. The camera will be available by spring and early summer and will sell for about \$385.

Below, is shown the interior of the camera with the new light baffles which tend to prevent any fog, particularly on color film. The new circular plate at the bottom of the camera is also shown. This will provide a quick, sure mounting when the novel tripod head is introduced.





Hans Koden Photo

LET'S MAKE MOVIES

SOUND—IN GENERAL

by Carlyle F. Trevelyan,

APSA, ACL

May 1953 already—Tempus fidgets! So, apparently, do our sound recording enthusiasts who remind me that it has been too long since some space was devoted to their particular problems. (AMERICAN PHOTOGRAPHY, Oct. 1952.) For this month then, I will temporarily put aside my movie discussion and let the "sound" boys and girls have their innings.

I will deal specifically with magnetic tape recorders since they are the easiest and lowest cost method of recording and reproducing sound and are in extensive home use today, far beyond any other sound recording system. Such recorders also make sound accompaniment for home movies quite easy. This accompaniment can be musical background, narrative ("voice over") sound effect types, or any combination of these. While magnetic-stripe movie films eliminate synchronization problems, the relatively high cost of such recording-projectors give the edge to the regular tape recorder. With a little care such recorders can be synchronized to a home moving picture, especially for the sound accompaniment types mentioned above. This synchronization can be practically perfect.

For the purpose of answering the questions most asked and getting over the greatest amount of help possible in this space, this article is built around the illustrations, reversing the normal method of having the photos pictorialize the text. Before doing so let's go over an important point.

Clean Sound

By "clean sound" we simply mean a sound track that is free of hisses, wows, rumbles, scratches, clicks and other noises. These, if included in our sound, have no more right to be there than scratches, fingerprints, poor exposures, dirt or any other such defect has the right to be in our films. Sound which is not "clean" isn't worth listening to unless it is so tremendously important that we must accept it that way. This does not apply to our movies and their sound.

Line noises, as clicks, "frying eggs," etc., can be eliminated by avoiding switching on lights, motors, fans, or other electrical devices during the recording session. The finest of microphones cannot prevent these since they occur in the power supply. Noises can enter into our tape recorder (or magnetic-stripe film) in three ways:

- 1) Through the power supply line.
- 2) Through the microphone.
- 3) Through the recorder input that has been hooked into another instrument such as a radio or phonograph.

Many annoying and often mysterious "dirty" sounds can be avoided by having all connections to the recorder clean and tight, even to the extent of soldering them where possible. If picking up from a direct hook-in to a radio or record player, any extraneous sounds will be recorded; they'll be sharper and clearer than they originally were! Records must be clean and the play-



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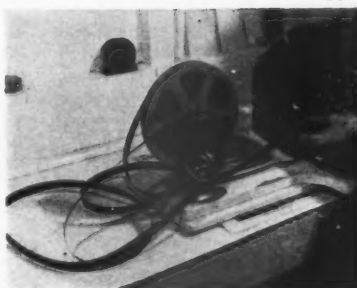
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back needle the best one can afford. The radio must be sharply and accurately tuned in. Both should have their tone controls set as far into "treble" as they can go. "Tone control" is to be used in the playing of the magnetic sound only. If radio pickup is used then FM offers much over AM, not only in purity of sound but also in the fidelity of that sound and almost perfect freedom from static and line noises.

The recording tape itself can be a factor in producing undesirable effects but these exist more in no sound at all rather than an unwanted noise. It has been my experience that even the lower cost brands of tape



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are good for general use. I have never had a reel of such tape add noise of its own. The major differences in price ranges of tape is in terms of fidelity, breaking strength and "hiss" as the tape goes over the recording head with the nod for better results in these respects going to the higher priced standard brands. If any of the oxide coating has been removed (on any tape), even in a spot no larger than the head of a pin, then there will either be a momentary lowering of volume or a "miss" in the sound. A poor splice will also behave in the same way.

Figure 1 shows the essential items needed for recording clean sound. The carbon tet and white cloth are for cleaning the recording and erasing heads as well as the pinch and idler rollers. These should all be cleaned after a few hours of use. First, however, be sure to brush out all dust, lint and fuzz that gathers around the moving parts as well as the heads (see Figure 2). The other items, yellow crayon pencil, magnet, roll of splicing tape and scissors will be used as seen later on.

Make sure that the recorder is firm and solid on some suitable support and that it has sufficient space around it for ventilation. It can get quite warm after a period of continuous use and this heat dries out the lubricating oil in and around the bearings. Your information sheet that came with the recorder will tell you about any necessary oiling.

One source of "wows" is shown in Figure 3. This happens when the tape is started or stopped while the volume (gain) control is set in any other position than zero. All recorders have some period of "lag" before they achieve full running speed or come to a complete stop and will "wow" the sound if the volume is above zero.

The remedy is obvious—don't have any gain (volume) on when starting or stopping the tape as in Figure 4. Even 1/10 second lag can hurt sound quality. It's the same principle as allowing the movie camera to get to full running speed before taking the picture.

Technically speaking, no sound is better than the microphone that picked it up but on the other hand, no mike ever recorded a sound it didn't "hear." Since our microphones have no intelligence and cannot—of their own volition—select those sounds we want, eliminating any other sounds, we can get a lot of "dirty" recording with careless use of the mike. Some pickups are supposed to be more selective than others, regarding the direction from which they will accept sounds but, why take chances?

The sound recording area, when using a mike, must be as close to ideal as we can get it. Regular sound recording studios know this and work under those ideals, including red lights and "quiet please!" Fortunately we can simulate such conditions very closely

at home. We may not have a soundproof room available but if we do arrange to have the room as quiet as possible during the actual recording period we improve our sound instantly. Don't forget to quiet those familiar sounds we seldom pay attention to: the refrigerator and the heating unit.

Figure 5 shows how a chair can be draped with a heavy cloth to aid in quieting the mike position. In some cases, a pillow in back of the mike will also help as in Figure 6. One can make simple tests to find the best set-up under his conditions. If recording while the projector is running (magnetic stripe or other type) then either baffle the projector or put it into another room with the mike on the other side of the door which has been almost completely closed. The film being sounded can be watched through the crack of the door while it is being projected.

Editing of a tape recording is as interesting and valuable as editing a movie film. Easy enough to do right from the start, one can develop the facility to edit as close as a syllable in a word or a very short musical tone. Basic steps in editing tape are:

- 1) Locate the precise spot or area.
- 2) Mark both beginning and end of the area.
- 3) Remove unwanted section and splice or fill in other sound.

To find the part to be edited, turn the gain control quite some higher than normal (after running the tape to the vicinity of the editing), and holding both the take-up and feed reels, move then back and forth. (The recorder is not running for this.) The sound will be distorted but after a few attempts can be understood well enough to mark. After finding the front end where the editing is to start, mark it right on the precise spot (on the recording or playback head, if they are separate), using a yellow or white wax crayon type pencil (see Figure 7).

Locate the tail end of the section the same way and then cut out that section between the marks or erase it in the event either that no splice is necessary or a new sound is to be put there.

For regular splicing of tape where a close cut is not a factor, perfect alignment of the tapes is had by lapping one atop the other, the end of one tape toward you and the end of the other in the opposite direction. A snip of the sharp scissors makes a clean cut that can be perfectly matched. (Some boxes of tape include splicing directions.) This type of cut is shown in Figure 8.

For close cutting as for a word or musical phrase, Figure 9 illustrates how both tape ends are overlapped while in the same direction. Sharp scissors must be used and a quick, careful snip will give a clean matching cut.

In an emergency, splicing tape can be regular "scotch" tape, the transparent kind.

However, better splices are made by using the specially designed splicing tape. This tape comes in several widths and lengths and one roll will make a great number of splices. There is less oozing out of the "stickum" due to pressure on the tape and a warm storage place. Even the special splicing tape occasionally oozes but this can be minimized by rubbing ordinary cheap talcum powder over the splice after the excess tape has been trimmed away.

In Figure 10 we see how a low power "horseshoe" or other type of permanent magnet may be used to reduce the loudness of a sound in any part of the tape or to completely erase a section. To reduce the volume the magnet is passed over the desired area, in contact with the tape itself. It may require several "treatments" to reduce the loudness of the sound sufficiently. If done too often there is the danger of complete removal of the sound. Strong magnets will work more rapidly but they do not offer the control of the less powerful ones. It takes so little time to stroke the tape several times that there is no need to use stronger magnets and run into the danger of complete elimination of the sound. A little magnet practice and one can really get enthusiastic about the possibilities for the close, fine editing it offers.

Future articles on sound will deal with more specific phases than does this one unless your questions indicate your desires for another on Sound—in General.

For the movie readers here are a couple of tips—just to close these pages and so you won't feel left out. We'll be back again next month with a full movie article.

Don't overfill movie reels. They have a nasty habit of spilling valuable film all over the workbench and floor when you do fill them too much. Experience shows that reels should be loaded to not less than 1/4 or 3/8 inch from the outside flange edge—if that much.

Also—make sure that the flanges are not bent in and are not binding the film. The sound of such bent flanges when film is being used on the reel is a warning to straighten them out. Your film easily can have its edges damaged under these conditions. Not only sprocket hole damage is possible but any type of sound track, particularly the optical kind, becomes irreparably hurt.

When handling your films it is a good idea to get used to wearing cheap white cotton gloves which can be laundered without any trouble. Finger oils don't belong on an emulsion and if you were to have prints made, every such spot will print along with the image.

Last memo—get your seeds planted—not only in the garden, but in the story plots for your vacation and trip films!

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PAGE(S) MISSING

One time all my customers fell down on me in a row. One after another they called up and asked if they could have a little more time to pay their bills, and of course I graciously told them certainly, take all the time you want. Just as I was frantically trying to figure out how I was then going to meet my payroll, the phone rang again. This time it was a fellow who wanted to remind me that it was the last day for getting your portrait made for the club roster, and to beg me not to fail them. So I grabbed a cab and left my troubles behind me, or rather took them along with me, and got up to the photographer's.

Anxious to get this job over with as soon as possible, I plunked myself down on the posing bench in anything but an amiable or placid frame of mind. A smiling young man enticed my face around in the right direction, lighted it properly, and then stood, bulb in hand, waiting for something. As I was impatiently wondering why he didn't squeeze the damn thing and be done with it and let me get about more important business, he gently inquired, "Do you have to look *quite* so severe?" That got under my guard. I relaxed for a moment and he made his shot and got a good portrait. He didn't know what was biting me, and he didn't care. His job was to make me forget it for an instant.

I have often envied him his technique when I have been on the other end of the operation and others have asked me to make their portraits. I have never acquired his skill and clever touch, but have learned to appreciate how much a good portraitist has to have on the ball all the time. You'd never believe it until you get stuck with the job yourself.

An old friend showed up one evening all shaven and shorn and calmly announced that I was going to make his portrait. I told him that was ridiculous, that he knew that I never made portraits and didn't know from nothing about it. He said to never mind that line, I was going to make one then anyhow. Being an old friend, he was not to be denied, so I dusted the dog hairs out of the chair and resignedly told him to sit down. I had read in a book somewhere that the chief ingredient of successful portraiture was the line of chatter that the operator handed out. As this was the only information that I had about making portraits, I started by putting it to work. Casual conversation developed the fact that this job was for the 25th annual reunion of his college class, that he had tried several of the best portraitists in town, and that all their work was terrible. After that experience he had to come and pick on me.

I asked him when he had last been photographed and he said not for many years. Then a light dawned. Twenty-five years out of college, and what did he look like when he graduated? I knew that he had been athletic and he was probably a fine looking lad, and that was the mental image

POP SEZ...

Franklin I. Jordan, FPSA, FRPS



that he had carried of himself for all these years, totally unconscious of the havoc that time had gradually wrought on him. He was now still a fine looking man, but of an entirely different type. Middle-aged, thick-set, heavy jowled, wearing a 17 collar, he looked the substantial prosperous business man that he was. To please him I had to somehow bridge the gap between what he was then and what he used to be. What to do?

On the camera that I was using there was no swing to give expression to the only solution of the problem that occurred to me, but I went ahead anyhow. My negative made him look the way he was and not the way he remembered himself, but I tilted it a little sideways in the enlarger and he came out noticeably slenderized. Not enough to make me an obvious liar, but just enough to split the difference with him. "Why didn't I think of you before," he exclaimed. "I might have known you were the only person who could make me look the way I am."

A dear old colored lady who was born a slave in the South, was a great friend of our family. We were all so fond of her that we wanted to get a picture of her. This time I stuck my neck out and volunteered to make a portrait without being invited or inveigled. Her lustrous black color made it an essay in low key, but I knew the technique for that. The negative was developed in pyro which gave full detail in the thin parts but with a delightful printing edge. It was a humdinger. I laid myself out to make as handsome and lifelike a print as possible and was very well satisfied and quite proud of the result. I presented it to her with great expectations but she gave it one scornful glance and exclaimed, "Take that away. I know I'm black, but I'm not as black as all that." That did not prevent our full enjoyment of the picture, but we were disappointed that she did not share it with us.

I afterward learned from real portraitists that a chemical blond is the only person who wants a portrait to match her complexion. And if you want a real surprise try to make a photograph that will do that. The camera has a natural propensity for exposing camouflage, which was used to great advantage by both sides during the war.

Then there was the girl who was a nat-

ural. She was photogenic anyhow, and so beautiful that it was no trouble at all to make a handsome portrait of her that won a prize in some kind of beauty contest. The trouble came later. I was soon besieged by unlovely females who had seen this picture and came to me expecting a miracle, and God knows some of them needed it. When I had done my feeble best they were disappointed and often deeply offended because I did not make them look as beautiful as I did that lady. Many of them took it as a personal affront. Why didn't I take as much pains with their picture as I did with Betty's?

We once had a good looking nurse in our house for a long time. She greatly endeared herself to us all, and when my wife suggested that she thought Mrs. Black would be greatly pleased if I made a picture of her, I welcomed this means of showing my appreciation. While I was setting up the lights, my sitter was stripping for action. My wife laughingly confided in me that she had dispensed with most of her clothes to reduce her apparent bulk as much as possible. This gave me my clue.

I posed her against a dark background and when I got the negative went at it with an etching knife and let that background engulf a great part of her figure. In a few minutes I undid what nature had spent years in building. Her bust contracted from 40-something to 36 and other parts came down in proportion. The result was pretty crude and the means obvious, but the lady never noticed it. It looked just the way she always hoped to. She asked how many prints she could have and my head turned by her adulation, I told her as many as she wanted. I finally made over six dozen and got abominably sick of looking at that crude retouching, to say nothing of buying portrait mounts at 40 cents a throw.

These brief incursions into the portrait field have left me with a great respect and admiration for the many skills that a portraitist must employ, and I am quite content to leave the field to him with the honor and emolument that go with it. He earns them. My own studio has gone to the dogs again, which was all that it was ever intended for. I have swept out the lipstick and face powder and let the dog hairs begin to accumulate again. It's a lot easier job.

NOTES AND NEWS

New Name in the 35mm Field

Pentacoin is a new name in the 35mm field of photography. Originating in Germany, this single reflex features a prismatic eye-level viewfinder which allows the photographer to see directly through the camera lens. The image is at all times upright and non-reversed, and all focusing and viewing takes place at eye-level. Wide angle and telephoto lenses, as well as extension tubes, microscope adapters and Novoflex bellows attachments are easily used on *Pentacoin* with complete control of the photographic image assured. Equipped with color-corrected Zeiss lenses with preset diaphragms, the camera takes 20 or 36 exposure rolls of 35mm film in standard cartridges. Loading is facilitated by hinged back and film guide. Focal plane shutter provides speeds from 1 second to 1/1000 in addition to bulb, and controlled delayed action up to 12 seconds is made possible by a self-timer. Internally synchronized for flash, the camera is furnished in satin chrome and leather covering. Prices are: with f/2.58mm Zeiss Biotar, \$359.50; with f/2.50mm Zeiss Tessar, \$299.75; leather case, \$15.00; B.C. capacitor flashgun, \$15.50. For further information, write the Pentacoin Corp., 50 West 29th St., New York 1, N. Y. Please mention AMERICAN PHOTOGRAPHY.

Filmstrip-Slide Projector

Called the *MC-300*, American Optical Company's filmstrip projector now features an improved condensing and an Autofocus slide changer as well as a reduced price. While *MC-300* remains basically the same as previous models, the "spherical design" condensing system enables more light to be put on the screen. The slide changer, with rapid push-through action, places each slide in the focal plane of the objective.

The projector has a motor driven fan for lamp house cooling, heavy gauge steel body, rigid die-cast base and comes finished in gray and maroon wrinkled enamel. Price, \$92.00. For further details write the American Optical Co., Southbridge, Mass. Please mention AMERICAN PHOTOGRAPHY.

New IkoFlex Available

IkoFlex IIa, a twin-lens camera with many automatic features, is now being shipped to

the United States from Germany. Equipped with Zeiss-Opton Tessar f/3.5 coated lens in Synchro Compur shutter, the camera permits shutter speeds up to 1/500 second.

Film is transported by means of a large knurled winding knob which, when turned, automatically cocks the shutter. When film is wound to figure "1" an automatic picture-counter dial keeps track of shots, thus eliminating the necessity of looking through the ruby window. Winding knob comes to a complete stop after each picture area on the film has been advanced. Automatic exposures are prohibited when the focusing hood is closed.

With "Extrabrite" ground-glass focusing screen, and direct vision, sports-type finder, *IkoFlex IIa*, promises to be a versatile camera which accommodates all IkoFlex accessories. It is priced at \$200, and has available a deluxe carrying case, \$16.00. For additional details, write to Carl Zeiss, Inc., 485 Fifth Ave., New York 17, N. Y. Please mention AMERICAN PHOTOGRAPHY.

Japanese Telephoto Lens

A coated telephoto lens is now being imported from Japan for use on Kine Exakta, Exa, Praktica and Contax S cameras. A three element, 80mm f/3.5 lens, it comes in a lightweight satin chrome finish focusing mount with settings from three feet to infinity. Price, \$19.95. For further information, write to Spiratone, Inc., 49 West 27th St., New York 1, N. Y. Please mention AMERICAN PHOTOGRAPHY.

Permanent Circuit Protector

Fitting like a fuse to any standard Edison base fuseholder that delivers up to 125-volt a-c service, *Mini-Breaker* protects circuits against overloads and shorts—permanently. It is a thermally actuated unit which consists of 25 parts self-enclosed in a tamper-proof insulating case, and which functions by interrupting excessive overloads. It instantly trips on shorts, but has a temporary time lag to accommodate temporary starting loads and line surges.

Outstanding feature of *Mini-Breaker* is that although service can be restored—by pressing in and releasing the reset button—within ten seconds after an interruption, the device itself is entirely trip-free. In other words, it will not permit use of a circuit whose error has not been corrected. Litera-

ture is available from Mechanical Products, Inc., 1824 River St., Jackson, Mich. Please mention AMERICAN PHOTOGRAPHY.

Transparent 8mm Reel Cans

Eastman Kodak now has a transparent reel can for 8mm film, it was recently announced. For simplified film storage, protection and identification (film titles may be lettered on white leader and be readily visible through the transparent plastic). With a capacity for 400 feet of film, the can sells for \$1.60, including a 400-foot 8mm Kodascope Reel. Without the reel, the can is 90 cents.

Leica Enlarger

The *Valoy Enlarger*, specifically designed for miniature cameras, has been announced by E. Leitz, Inc. Accommodating negatives from 35mm to 4x4cm, the *Valoy* features diffused illumination from a 75-watt bulb and accepts enlarging easels up to 11x14. Practical aspect is that the condenser also functions as a pressure plate to keep negatives firm and in a flat plane. Of manual operation, *Valoy* has the same precision optical system and other features of the more advanced enlargers. Either a 50mm Elmar lens, by Leica, or a special Leitz enlarging lens with click stops may be used. Price, \$81.00. For further details, write to Leitz, Inc., 468 Fourth Ave., New York 16, N. Y. Please mention AMERICAN PHOTOGRAPHY when writing.

Two Changes in Leica Design

To facilitate operation of the Leica camera, E. Leitz announces that the depth of field and distance scales on the Leica Elmar 50mm f/3.5 lens have been reversed. The depth of field scale is now marked in red on the lens flange, and the distance scale is indicated on the lens barrel. This new design will make for greater ease of operation as well as more rapid reading of the distance from camera to subject.

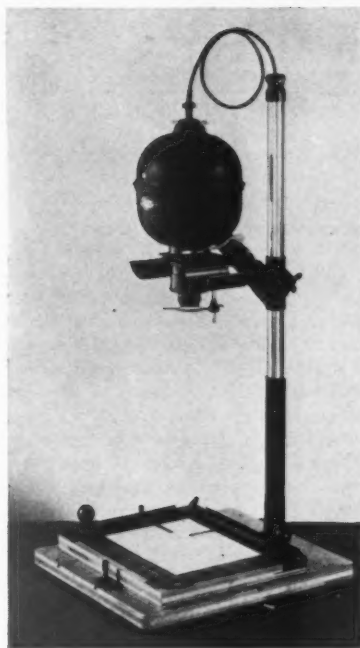
The second change is on the BC insert to avoid misfiring of flashbulbs. Now there is a self-adjusting metal plunger attached to the outer surface of the insert. This insures proper contact with the bulb adapter of the unit, says Leitz.



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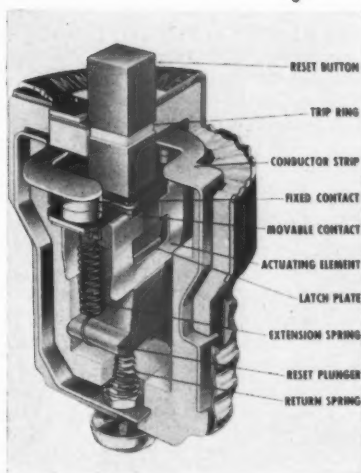
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- 1 Pentacon, a new name in the 35mm field.
- 2 MC-300, a filmstrip-slide projector by American Optical Co.
- 3 Ikoflex IIA has many automatic features.
- 4 Japanese telephoto lens for Kine Exacta, Praktica, etc.
- 5 Mini-Breaker protects circuits against overloads.
- 6 Scales have been reversed on the Leica Elmar lens.
- 7 Valoy Enlarger for 35mm cameras, by E. Leitz.

NOTES AND NEWS

Condenser-Diffusion Enlarger

A professional type enlarger, the *Primos Autofocus Enlarger*, designed for 35mm film, features rigidity and high light output, as well as conveniently accessible controls. Lamphouse bulb can be focused through the condenser which distributes light into the negative carrier, for grain-free enlargements. A circular vent system cools the lamphouse. With a range of from two to ten diameters on the baseboard, *Primos Autofocus* makes enlargements up to 11x14. Larger enlargements are possible by means of manual focusing, and for 20x30's, the enlarger may be turned around in order to project the image upon floor or chair.

To make an enlargement, 35mm film is placed upon the negative carrier which has a track to draw film from one film chamber wing to the other. Film is held in place or moved through the negative carrier by means of a lever. The lever raises or lowers the single condenser into the film acting as a stop, and simultaneously focuses the light through both condenser and film. Without lens, *Primos Autofocus* is priced at \$113.00. Steinheil f/3.5 50mm enlarging lens is \$30.00; color head, \$15.00. Please mention AMERICAN PHOTOGRAPHY when writing the Camera Specialty Co., 50 West 29th St., New York 1, N. Y., for details.

All-Purpose Tripod Attachment

Tri Vater is the name of a low-cost tripod attachment which permits expanded scope of photographic activity. By securing the camera to *Tri Vater's* platform, an extension of 14 inches above and below the tripod can be achieved. This handy device may be mounted on the side, too, for copy work and other trick effects. Precision made, \$4.95 in most camera shops. For further information, write Sutz Products Co., 538 S. Dearborn St., Chicago 5, Ill. Please mention AMERICAN PHOTOGRAPHY when writing.

Wide Angle Lens for 8mm's

A new wide angle lens in D mount for 8mm cameras, the *Elitar 7mm f/2.5*, recently has been announced. Hard-coated, and with a built-in filter and retaining ring, the lens comes in a chrome mount with click stop diaphragm. Price, \$29.95. The *Elitar 1 1/2 inch f/1.9* focusing mount telephoto lenses are also coated. They fit Bell & Howell 8mm

camera models 172A, 172B, 134V, 134W. Price, \$38.95. Consult your local camera store for details.

Remodeled Vitessa 35mm

A new model of the Voigtlander Vitessa 35mm camera is currently being marketed by Willoughbys, of New York. Taking rapid sequence pictures by means of pressing a continuous action plunger, *Vitessa* now comes equipped with Synchro-Compur M-X shutter, internal flash synchronization for all bulbs and speeds, and an advanced design lens mount capable of accepting bayonet type filters and focars. Removable back, automatic parallax and film pressure plate are standard. Lens is Voigtlander Ultron 50mm f/2; shutter speeds are from one second to 1/500 and bulb. View and rangefinders are combined, and a built-in mechanism prevents double exposures. Complete with lens, \$159.50. Inquire at your local camera store, or write to Willoughbys, 110 West 32nd St., New York 1, N. Y. for further information. Please mention AMERICAN PHOTOGRAPHY when writing.

Shockproof Electronic Speedlight

A powerful miniature electronic flash has just been announced. Self-contained in a seven-inch high case, the unit weighs 27 ounces. Called *Minitron*, this electro-flash unit may be operated directly from wall outlets or from an accessory battery power pack which will be available in the near future.

In operation, *Minitron* has a flashing neon lamp which indicates when firing is possible. Recycling is accomplished within six seconds. Although the flash will synchronize with all X shutter cameras, synchronizer adapters are available for cameras with M and F shutters. One outlet provides all standard synchronizing cords and slave adapters, and the storage capacitor is automatically discharged by a handy on-off switch. *Minitron* accumulates 60 watt-second energy storage which, when combined with the reflector, enables a guide number of 160 for fast panchromatic film, and over 300 when super speed developers are used. Guide number for Daylight Kodachrome is 28. *Minitron*, priced at \$59.95, is manufactured by the Radio Engineering Co., 8 State St., New York 4, N. Y. Please mention AMERICAN PHOTOGRAPHY when writing for additional details.

Addition to TDC Line

TDC announces a popular-priced 200-watt, blower-cooled projector for 2x2 slides. Called the *Headliner*, this model has a new-type condenser and filter-condenser system, a five-inch coated anastigmat lens and streamlined housing. The carrier is of feed-through type, and a micro-tilt adjustment has dual knobs at left and right. The air intake is covered by a screen for protection. Blower, integrated in the housing itself, is cuff-mounted. In a metallic finish carrying carton, \$37.50. Luggage style case is available at \$6.00. For details, write the Three Dimension Co., 4555 W. Addison St., Chicago 41, Ill. Please mention AMERICAN PHOTOGRAPHY when writing.

Type A Kodachrome for Stereo

Eastman Kodak announces that Type A Kodachrome film in stereo loading for use with photoflash or photoflash illumination will be available for stereo cameras making 23x24mm stereo pairs with standard spacing between pictures. The stereo pairs will be mounted at no extra cost to the customer, when the film is sent to Kodak for processing. Photographers who wish to have their stereo pairs mounted in standard Kodaslide stereo mounts should send their films only to Rochester, N. Y. The Chicago and Hollywood processing labs are expected to provide mounting service in the very near future.

Producing 20 pairs of pictures, the film is priced at \$4.75 per roll, including tax.

Viewfinder for Contax IIa, IIIa

A *Universal View-Finder* is now available at authorized Zeiss-Ikon shops. The finder covers the field of view of the 25, 35, 50, 85 and 135mm focal length Contax lenses. It provides for individual eyepiece focusing and is equipped with parallax-correction adjustment. With leather case, and slots for attaching to straps, \$80.00. For further information, write to Carl Zeiss, Inc., 485 Fifth Ave., New York 17, N. Y. Please mention AMERICAN PHOTOGRAPHY when writing.

Low Priced Film

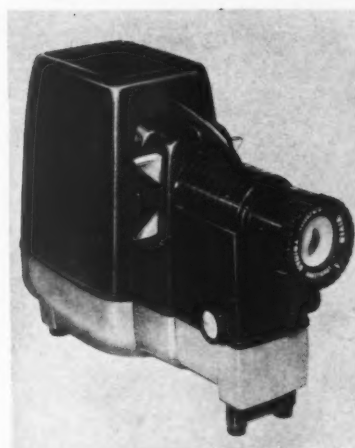
A new line of film, *Sovereign*, is being introduced to camera stores, and will be



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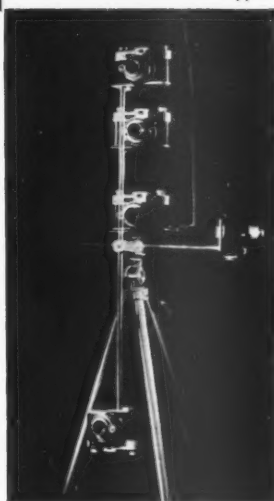
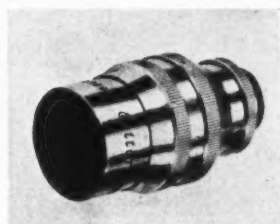
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- 8 Primos Autofocus Enlarger.
 9 Elitar wide angle lens.
 10 Remodeled Vitezza 35mm.
 11 Tri Vater tripod attachment.
 12 Headliner projector, by TDC.
 13 Minitron, shockproof speedlight.

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available in the following sizes and types: rollfilm, S-127, S-620, S-120, S-116, S-616 (orthochromatic—ASA 40); 35mm x 36 exposures (panchromatic—ASA 25, 50 and 100); 16mm 50 foot magazines (panchromatic—ASA 50); 16mm 100 foot rolls (panchromatic—ASA 50); 16mm 100 foot rolls (panchromatic—ASA 50); 8mm 25 foot double (panchromatic—ASA 50). For details, write the Sovereign Film Co., 11 Broadway, New York 4, N. Y. Be sure to mention AMERICAN PHOTOGRAPHY when writing, please.

B-C Flash for Graflex "22"

Graflex is now marketing a battery capacitor flash unit for the Graflex "22." Called *Graflash B-C*, the unit attaches to a shoe on the side of the camera. It does not require adjustments for synchronization, and it is automatically positioned to produce even illumination over the picture

area covered by the lens. Flash extensions may be used in conjunction with *Graflash* which uses bayonet base flash lamps and a parabolic reflector. Finished in dark gray, the unit will sell for \$9.95 at camera stores.

Guards, Corrects, Diffuses

For protection against the shattering glass of flashbulbs, a flexible plastic hood, the *Apel Tri-Color Guard*, is now on the photographic market. In addition to safety, the hood provides color correction when using outdoor film indoors, as well as diffusion for both black-and-white and color film. Color correction, diffusion and safety devices are used by means of selecting one of three panels: blue, frosted or clear. Available at camera stores for 49 cents. For additional details write to Apel Photo Products, 3118 W. Marquette Rd., Chicago 29, Ill. Please mention AMERICAN PHOTOGRAPHY when writing.

Movie Projection Lamp

Westinghouse has developed a motion picture lamp with a compact-filament that is said to put more light on the screen than any other projection lamp of equal wattage. Producing up to 20 percent more light, the lamp has a biplane filament which makes home movie projection easier by eliminating the need for voltage transformers or resistors when projectors were used on standard household circuits.

The lamps are available in 500- and 700-watt sizes.

Professional Service to All

Authenticolor, Inc., New York photo lab specialists, announces expansion of service to all amateur and professional photographers. For information, write Authenticolor, Inc., 270 Park Ave., New York, N. Y. Please mention AMERICAN PHOTOGRAPHY.



FOR MEMBERS ONLY

by Victor H. Scales, Hon. PSA

FOR MEMBERS ONLY is dedicated to the news, views and activities of photographic organizations, with special emphasis upon camera clubs and their operational problems.

Photographic organizations are requested to direct their bulletins regularly to: **FOR MEMBERS ONLY, AMERICAN PHOTOGRAPHY**, 553 Avenue of the Americas, New York 11, N. Y.

MONTHLY PRINT COMPETITION

THE "JACKSON PARKERS"

Final answer to all arguments over the "new" and "old" in photography is the camera itself. This creative instrument is limited only by the skill and the imagination of the user. It is as free as brush, chisel, or typewriter to say exactly what its user wants it to say.

Since the camera will photograph anything from ardvarks to zebras, the pho-

tographer makes the choice of pictures. Arguments over the pictorial and documentary schools may enliven camera club meetings and fill editorial space, apparently the major reason for starting them, but contribute little to photography except as they lead photographers to think and to realize that there are many different kind of pictures to be made.

It cannot fairly be said that any one kind is "best." Is poetry superior to prose, or telegrams to letters? Each has its place and its purpose. Each serves fully some useful end. Each borrows some attributes from the other.

All of which leads to the point that the 135 members of Chicago's Jackson Park Camera Club have the right idea. They shoot the works! Some make documentaries, some make pictorials. Sometimes it is difficult to decide which pictures are which, as witness those published herewith as comprising **AMERICAN PHOTOGRAPHY'S** Monthly Print Competition.

The Jackson Parkers will be remembered as comprising one of the "shootingest" camera clubs in the whole U.S.A. Repeatedly they have won the "Chicagoland" documentary competition for making the most and the best pictures of Chicago and its people going about the mutual business of living. Last year alone they produced 948 prints, of which 674 were accepted for the permanent files of the Chicago Historical Society.

This is the work of only a few of the 135 members of the club, one of the largest in the Chicago area. The club has its own meeting room, studio and three darkrooms. It holds a meeting every week in the year, with an average attendance of 50 to 60.

Jackson Park is *not* a documentary club. Besides the approximately 20 members who photograph "Chicagoland," there are others active in pictorialism, color slides and stereo. The club holds an annual pictorial salon. It operates schools, chiefly how-to-do-it projects conducted by experienced members. It conducts studio sessions and field trips. It presents print exhibits and color-slide shows at local institutions. It

Clarence Homan, *Safety Patrol at Crossing*





◀ Mildred Mead, *Chicago Contrast*

▼ Sherwin Murphy, *Norway in Chicago*

holds large-print contests, and small. It develops its programs so that every member, regardless of personal interest, is busy. The club works at being a club!

The club has substantial assets in members with extensive photographic experience. Henry van Westrop operates a photographic studio. Dick Stevens and Nellie McDermott are child portraitists. Charlie Lindsay is staff photographer for Loyola University Medical School. Mildred Mead is professional photographic documentarian for the Chicago Housing Authority. Al and Lil Bloom are free-lance photographers. John Maurer is a photographic technical consultant. Harry Shigeta, an honorary member and annual star of the club program, has acquired almost every available photographic honor. Earl Krause specializes in yachting pictures. Sherwin Murphy leans to airmages and seascapes. Owen Kent operates a camera store. This vast pool of talent is drawn upon for club programs, and to help other members.

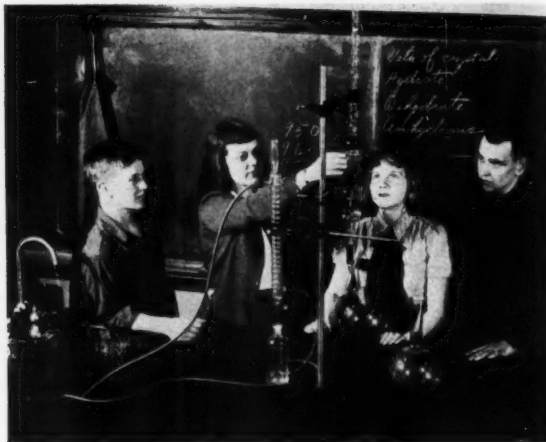
The club doesn't regard itself as being strongly pictorial or narrowly documentarian or biased in any way. It thinks of itself primarily as a camera club. It sees its job as helping members to learn and to enjoy photography. Yet it looks upon itself as being not merely a camera club, but a part of life in Chicago; hence the "Chicago-land" project and the shows at institutions.

Pictures made by Jackson Parkers reflect the club's happy philosophy of using the camera for enjoyment and purpose, but well. *Chicago Contrast*, by Mildred Mead, could be classed either as documentary or pictorial, or both. So also could Sherwin Murphy's *Lighthouse, Michigan City*, which incorporates the classic "pictorial" composition and thereby achieves both intriguing





Mildred Mead, *Chicago Boys of the Back of the Yards District*



Al Bloom, *Chemistry Still*

FOR MEMBERS ONLY/MONTHLY PRINT COMPETITION

arrangement and catching picture quality.

Who can say whether Edith Riddle's *Calumet River Scene* is "new" or "old" photography? And is Al Bloom's *Chemistry Still* any less pictorial because it happens to have been made as a documentary? Lillian Bloom's *Chicagoans at Play* happens also to have been made as a documentary, but it could be a prized family shot of father and son, its sentimental value growing with the years.

Sherwin Murphy's *Norway in Chicago* serves equally well as marine, illustrative, documentary and pictorial picture. Photographers avid for surface techniques might like to fuss a bit with it. They'd say subordination of the background and heightened emphasis upon the ship, achieved under the enlarger, or with mediobrome, or through multiple printing, could make it "more pictorial." That is a matter largely of opinion and taste.

Closer to the pictorial tradition is Ann Dieterle's *Santa Maria*. Seasonal conditions, including snow, have been utilized to incorporate the feeling of abandonment and decay.

Clarence Homan took *Safety Patrol at Crossing* purely as a documentary shot. Yet there is about this picture the pictorial quality of the old Dutch genre school—with modern implications.

It might have been a better picture without the hydrant and fence? Dyed-in-the-wool pictorialists may recoil in horror at the figure "walking out of the picture"?

The error is of the times, not the photographer. Modern city children are surrounded by fences. Hydrants are part of the scene in every city street. Children are forever walking out of the picture of life.

This shot has the lifelike honesty of the unposed photograph. The subjects, even those standing still, actually contribute to the action. Yes, there are "mergers" and "conflicts." The right-hand figure and the station wagon and the urn could be confusing. But life in a modern city includes mergers, and conflicts, and confusion; they're part of the scene!

Many photographers have had the opportunity to take *Home in Triumph*, also by Sherwin Murphy. This is a documentary of the return of the Fifth "Red Diamond" Division in 1946. A million veterans would thrill to this picture, for it is the dream of every man in uniform sometime jubilantly to parade the hometown's main stem.

The flags are blurred and not flying free? There's no "center of interest"? The subject matter is full of mergers? The lighting is insufficiently dramatic? True, if such things matter. Photographers who eschew these so-called faults had better keep away from parades!

Henry Dieterle's *Studio Session* proves that photographers need not go far afield to find suitable subjects. Here are the Jackson Parkers themselves! Who are the individuals? They're photographers, and that's all anyone needs to know. Isn't the floor rather messy? Camera club studio sessions

seldom give a thought to good housekeeping. Why didn't that chap in the dark suit face the camera? Photographers are like that.

This picture of a camera club studio session is *all* camera club, *all* studio session, *all* photograph. Who cares whether it is pictorial or documentary? Unposed, natural, full of life as it is lived today, this picture, without words, tells the story of a camera club anywhere!

Chicagoan of 1952 and *Back-of-the-Yards Boys*, both also by Mildred Mead, disclose that same element of universality. It is a quality which separates certain pictures from their locale and makes them not merely shots of identifiable places and people but pictures of people in a recognizable phase of life.

The *Boys* comprise a typical teen-age gang. The peddler of wood is of a type often seen and seldom photographed. These are "backyard pictures" which so many overlook, yet which are to be had for the taking—just around the corner!

Perhaps these pictures are best described as pictorial documentation. Certainly they are not of the realistic "ashcan" school, nor do they have the sociological "ain't-it-a-shame" approach. The Jackson Parkers are photographing Chicago as they live it.

These pictures, headed for permanent historical files, are destined to live. They'll still be good photographs, as well as valuable historical documents, in 2053. Wonder what camera clubs will argue about then?

Edith Riddle, *Calumet River Scene*





MEDALIST

Sherwin Murphy,
Lighthouse, Michigan City

Henry E. Dieterle, *Studio Session*



Lillian Bloom, *Chicagoans at Play*





Mildred Mead, *Chicagoan* of 1952

Sherwin Murphy, *Home in Triumph*



Ann Dieterle, *Remains of Columbus Flagship, Santa Maria*. (Replica from 1893 Columbian Exposition, lying in Jackson Park Harbor.)



YOUNG PHOTOGRAPHER III

STUART UMIN

STUART UMIN is another young photographer in the "under 20" age bracket, whose work reveals not only admirable craftsmanship, but more important, an immediate response to the world about him.

Well established in New York City's younger photographic set, Stuart already has made off with numerous awards. As a hard working member of the PAL (Police Athletic League) camera club, he won the *World-Telegram's* 1952 Honor Award with his shot of the



contented kitten (above). The same picture netted him third prize at the New York Armory Exhibit a year ago.

On the following pages are photographs which show a well-rounded scope of interest and experimentation. There is the provocative figure on a staircase, a brief moment with a small child engulfed by a street crowd, the details of oil-on-glass and chipping paint. Here are the makings of a first-rate photographer!



STUART UMIN
YOUNG PHOTOGRAPHER



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Oil
fire



◀ Old paint, peeling under the stress of weather—who would've thought this could make an interesting picture?

The shots at the left and right are split seconds in the passing scene. Although they are not perhaps *directly* momentous in terms of subject matter, they state an acute awareness of human beings in everyday situations. This is truly capturing the "margin of consciousness" with a camera.

◀ Oil, glass and light made a first prize for Umin.





**TRY
THE REALLY DIFFERENT
FOR
YOUR
NEGATIVES**



*Text and Photographs
by Derald Martin*

ONE OF THE LEAST-USED of the controls available to the serious worker in photography is his choice of films. Nearly every photographer has some idea of the advantages and disadvantages connected with the use of ortho, panchromatic and color-blind films, but the creative possibilities of infra-red and litho films are often overlooked in favor of use in scientific and graphic arts photography.

Infra-red film is easy to use, not particularly expensive, and has the ability to lift many shots out of the ordinary class by virtue of its unfamiliar rendering of familiar values. Flesh tones come out very white, green grass and trees show up in very high values, and all shadow areas go jet black. Skies go black, and clouds stand out in bold relief against them. The very black shadows simplify the making of sandwich prints, since it is relatively easy to fit another image into the large clear (shadow) areas of the infra-red negative.

The film is slow when exposed through a 23A (red)

filter, normal sunlight exposure is about $1/50$ at $f/8$ —this to be coupled with development in D-76 for eight minutes at 68F. However, it has been my experience that the film can be exposed $1/50$ at $f/11$ or even (in bright desert or beach sunlight) $f/16$. This naturally calls for extended development, about 14 to 18 minutes at 68F. This treatment simply exaggerates the effects already noted, giving greater contrasts and cleaner shadow areas.

If you want to develop by inspection, it is important that you use the series seven safelight, not the regular green series three that you use for panchromatic film. Infra-red film is very sensitive to certain of the wavelengths transmitted by the series three and even short inspection late in the development will seriously fog film.

Infra-red rays are not refracted so much by your lens as are visible light rays and as a result the actual infra-red image will be slightly behind the film when the visible light rays are focused exactly on the emulsion surface.

Infra-red film can give you dramatic landscapes like the one below and also can sometimes convey a distinctly different mood as in the shots at the left where the dream-like mood is established not only by the posing and incongruous surroundings but by the color-shift as well.





TRY THE REALLY DIFFERENT FOR YOUR NEGATIVES



The use of lithographic film (available at the larger camera stores) suppresses middle tones and exaggerates contrast. Variations on the use of litho products is suggested in this article and further illustrated here.

Ideally
as possible
bring
In action
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focal length
In any
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mally



Ideally, then, the camera should be focused as accurately as possible by eye then the lens racked forward slightly to bring the infra-red rays into focus at the plane of the film. In actual practice however the correction needed is so slight that it can be ignored as long as lenses of reasonable focal length are employed: that is anything under 400mm. In any case, the use of a stop of $f/8$ or smaller will take care of the difference. In the case of the 400mm lens the difference would be approximately one millimeter—normally not a serious discrepancy at small stops.

Lithographic films also can be utilized in the making of creative photographs. The extreme black-and-white of the litho image, so vital to its intended use in the printing processes, can be adapted to the photography of landscapes, portraits, patterns, figures and many special printing effects.

While litho *can* be exposed directly in the camera just as you would expose any other film, its very low speed—approximately ASA 2, daylight—and its extremely narrow latitude of exposure make it especially difficult to use as an



TRY THE REALLY DIFFERENT FOR YOUR NEGATIVES

With infra-red—

1. Use 25 or 23A (red) filter.
2. Expose 1/50 at f/11-f/16, in bright sun.
3. Develop 14 to 18 minutes in D-76 or equivalent.
4. Series seven safelight, or none at all.

With kodalith—

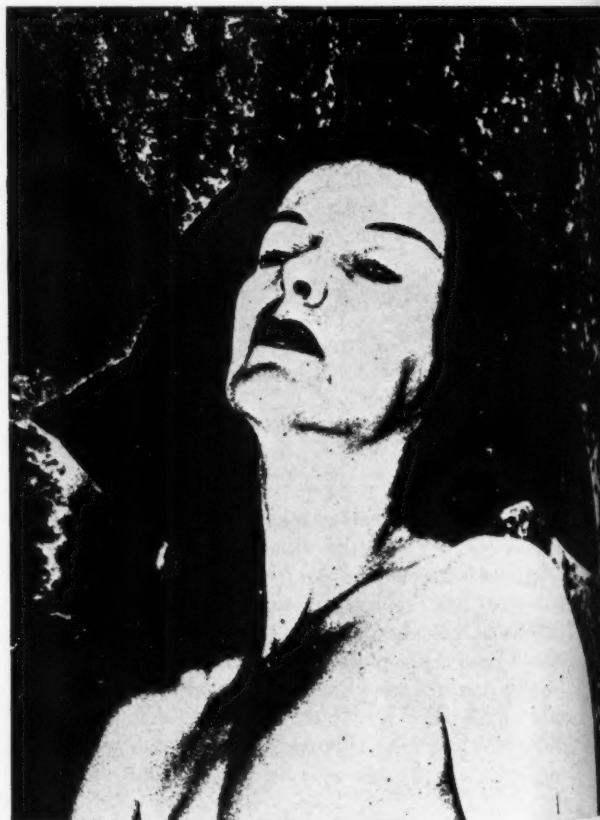
1. Either make test exposures in camera or—
2. Shoot originals on pan film with red filter.
3. Make positive, then negative, on lith, by contact printing.
4. Use high contrast developer—D-11, or D-72, mixed 1-1 for contrast.

original film. It is usually easier to expose the original on your regular panchromatic film, and then make a duplicate negative on the litho in the darkroom. If you use a red filter in sunlight and a single light source indoors, you will have a head start on producing the contrast that will make the final print.

When you make a contact print on litho from your original negative, you will step up the contrast tremendously and printing it back onto another piece of litho to get a negative will step it up again. This can be repeated if you wish until all of the middle values drop out entirely and the resulting print is stark black-and-white, like a woodcut.

Obviously the success of this treatment lies largely in the choice of subject matter and this choice must be made with the end result in mind. Like the woodcut it resembles, the litho print must be kept simple in line and mass. Without the roundness and volumes of the normal photographic

When a negative is duplicated on litho film the contrast is exaggerated—and repeating the process will lead eventually to a purely black-and-white image. These duplicated films can be printed either as positives or negatives to heighten the desired effect.



image, some subject matter becomes much too complicated and cannot be reduced to just black-and-white without becoming a meaningless jumble of unrelated lines and shapes. Strong heads, simple figures and very simple pattern shots seem to produce the most effective prints from this technique.

Because of its extreme contrast litho can also be used for the making of the diapositive for printing bas-relief prints. Because the scale of the litho positive disagrees with the scale of the original negative, the resulting print can be positive in the highlights and negative in the shadows, while maintaining the bas-relief effect in both areas. By printing a new litho negative from the litho positive the process can be carried a step further, reversing the situation just outlined above. This step can be repeated until the positive and negative are composed entirely of opaque and clear areas and the resultant print will be composed of a few black lines on a white background.

Litho negatives can also be solarized and double printed very effectively but because of their extreme densities they can be sandwiched in only in a very few special cases.

High contrast developers, such as D11, are recommended for all litho work but a standard paper developer, such as D72, 1:1 will give fair results in most cases. Don't worry about grain—litho is an extremely fine-grained film.

In the use of infra-red and litho films, as in all other phases of the creative photographic process, the final test of your good taste is the judgment you use in the application of the particular process to the particular print you are making. These films will help you to get good pictures but they can only *help*—the selection of appropriate subject matter and tasteful application of the chosen technique to that subject matter are still the problem of the photographer.

It is still the photographer and not the special effect that makes the fine photograph.



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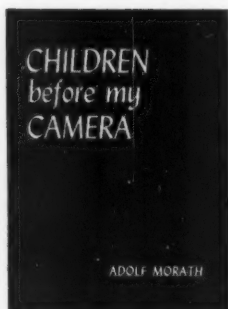
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